VOLUME 2

NEW YORK GATEWAY
CONNECTIONS IMPROVEMENT PROJECT
TO THE US PEACE BRIDGE PLAZA

Draft Design Report/Environmental Impact Statement

Draft Section 4(f) Evaluation (49 USC 303)

APPENDIX A – PLANS AND PROFILES

PIN 5760.80
City of Buffalo
Erie County, New York

November 15, 2013

U.S. Department of Transportation
Federal Highway Administration

New York State
Department of Transportation

TABLE OF CONTENTS

1. Design Criteria

Critical Design Elements for I-190

PIN:	5760.80		**NHS (Y/N):**	Yes
Route No. & Name:	I-190 Niagara Thruway		**Functional Classification:**	Urban Principal Arterial Interstate
Project Type:	Reconstruction		**Design Classification:**	Interstate
% Trucks:	8%		**Terrain:**	Rolling
ADT (2040):	111200		**Truck Access/Qualifying:**	Qualifying Highway

	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITIONS	PROPOSED CONDITION	REFERENCE
1	Design Speed[8]	60 mph	60 mph	60 mph	HDM § 2.7.1.1.A
2	Travel Lane width (min)	12.0 ft.	12.0 ft.	12.0 ft.	HDM § 7.6.3.1 HDM Exhibit 7-10
3	Shoulder Width (min)[2]	Left - 4.0 ft. Right - 10.0 ft.	Varies 3.5 ft. to 4.3 ft.** Varies 5.5 ft. to 10.5 ft.**	Varies 3.5 ft. to 4.3 ft.** Varies 5.5 ft. to 10.5 ft.**	HDM § 7.6.3.1 HDM Exhibit 7-10
4	Bridge Roadway Width	Same as travelway	4-12 ft. lanes (77.4 ft. overall)**	4-12 ft. lanes (77.4 ft. overall)**	NYSDOT Bridge Manual § 2.3.1
5	Maximum Grade	4.0%	3.0%	3.0%	HDM § 7.6.3.1 HDM Exhibit 7-10
6	Minimum Radius	1263 ft. (@ 6.0% SE)	1716.0 ft	1716.0 ft	HDM § 7.6.3.1 HDM Exhibit 7-10
7	Superelevation	6% (max.)	2.0%	2.0%	HDM § 7.6.3.1 HDM Exhibit 7-10
8	Stopping Sight Distance (min)	475 ft.	517 ft.	517 ft.	HDM Exhibit 2-2
9	Horizontal Clearance Without barrier With barrier	15.0 ft. Greater of shoulder width or 4.0 ft.	10.5 ft.** Varies ≥ 3.5 ft.**	10.5 ft.** Varies ≥ 3.5 ft.**	HDM § 2.7.1.1.I
10	Vertical Clearance[3, 7]	16.0 ft. (min) 16.5 ft.(desired)	at Porter Ave: 16.13 at Ramp B: 14.53 ft** at Shoreline Trl: NA	at Porter Ave: 16.15 at Ramp B: 14.53 ft** at Shoreline Trl: 17.5 ft	NYSDOT Bridge Manual § 2.4.1
11	Pavement Cross Slope (min) / (max)	1.5% / 2.0%	2.0%	2.0%	HDM § 2.7.1.1.K
12	Max Rollover[4] Between Lanes Between EP/Shld.	4.0% max 8.0% max	4.0% max 8.0% max	4.0% max 8.0% max	HDM § 2.7.1.1.L
13	Structural Capacity	AASHTO HL-93 & NYS design permit vehicle	No Bridge	No Bridge	NYSDOT Bridge Manual § 2.6.1
14	Level of Service	C (min.); conditions may necessitate D	D (NB); D (SB)[5]	F*(NB); F*(SB)[6]	HDM § 2.7.5.2.O
15	Control of Access	Full	Full	Full	HDM § 2.7.1.1.O
16	Median Width[2]	4.0 ft.	Varies 6.0 ft. to 11.0 ft.	Varies 6.0 ft. to 11.0 ft.	HDM § 7.6.3.1 HDN Exhibit 7-10

NOTES

1. All existing conditions were acquired from GIS database mapping or As-Builts (as available)
2. Minimum Median consists of two 1.0 ft left shoulders and a 2.0 ft wide median barrier (Standards of the day)
3. Vertical clearance for Pedestrian bridges shall be 1.0 ft greater (17.0' min. & 17.5' desirable)
4. When the maximum superelevation rate exceeds 6%, a maximum rollover rate of 10% at the edge of the traveled way may be permitted.
5. In the 3 lane section north of Interchange 9, the existing LOS northbound is F.
6. In the 3 lane section south of Interchange 6, the existing LOS southbound is E.
7. The Ramp B over I-190 structure is one of those on the listing of structures in Appendix 2C of the NYSDOT Bridge Manual whose existing clearance can be retained as agreed by FHWA on December 12, 1991.
8. The Regional Traffic engineer has concurred that the use of a design speed of 60 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume. (Refer to section 2.3.1.5 speeds and delays and Appendix B of this report for additional information on speed data)

* Non-Standard Feature

** Non-Standard Feature (Existing and Proposed)

Critical Design Elements for Ramp N[4]

A 14+50 to A 29+00

PIN:	5760.80	**NHS (Y/N):**	No
Route No. & Name:	Ramp N	**Functional Classification:**	Urban Principal Arterial Other
Project Type:	Reconstruction	**Design Classification:**	Ramp (Diagonal)
% Trucks:	14%	**Terrain:**	Rolling
ADT (2040):	22800	**Truck Access/Qualifying:**	Qualifying Highway

	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITIONS	PROPOSED CONDITION	REFERENCE
1	Design Speed[5]	35 mph	35 mph	35 mph	HDM § 2.7.5.2.A
2	Travel Lane width (min)	26 ft. (2-13 ft. lanes)	24 ft.	26 ft.	HDM § 2.7.5.2.B Exhibit 2-9a
3	Shoulder Width:	Left - 3.0 ft. Right - 6.0 ft.	varies 0 to 10 ft.* varies 4 to 13 ft.*	4.0 ft. 6.0 ft.	HDM Exhibit 2-10
4	Bridge Roadway Width	Same as travelway (2- 24 ft lanes, 34 ft wide overall,)	No Bridge	No Bridge	NYSDOT Bridge Manual § 2.3.1
5	Maximum Grade	6.0%	2.0%	3.8%	HDM Exhibit 2-10
6	Minimum Radius	340 ft (@ 6.0% SE)	503 ft.	552 ft.	HDM Exhibit 2-10
7	Superelevation	6% (max.)	6% (max.)	6% (max.)	HDM Exhibit 2-10 HDM § 2.7.5.2.G
8	Stopping Sight Distance (min)	250 ft.	N/A	250 ft.	HDM Exhibit 2-10
9	Horizontal Clearance (min)	Left - 3.0 ft. Right - greater of shld. width or 6.0 ft.	6.0 ft. 2.5 ft.*	3.0 ft. 6.0 ft.	HDM § 2.7.5.2.I
10	Vertical Clearance[3]	16.0 ft. (min.) 16.5 ft. (desired)	Porter Ave. - 16.15 ft. Ramp P - 15.42 ft.**	16.15 ft. 15.42 ft.[3]**	NYSDOT Bridge Manual § 2.4.1
11	Pavement Cross Slope (min) / (max)	1.5% / 2.0%	2.0%	2.0%	HDM § 2.7.5.2.K
12	Max Rollover Between Lanes Between EP/Shld.	4.0% max 8.0% max	4.0% max 8.0% max	4.0% max 8.0% max	HDM § 2.7.5.2.L
13	Structural Capacity	AASHTO HL-93 & NYS design permit vehicle	N/A	N/A	NYSDOT Bridge Manual § 2.6.1
14	Level of Service	C (min.); conditions may necessitate D	E*	C	HDM § 2.7.5.2.N
15	Control of Access	Full	Full	Full	HDM § 2.7.5.2.O
16	Pedestrian Accommodations	N.A.	N/A	N/A	HDM § 2.7.5.2.P

NOTES

1. All existing conditions were acquired from GIS database mapping or As-Builts (as available)
2. Vertical clearance for Pedestrian bridges shall be 1.0 ft greater (17.0' min. & 17.5' desirable)
3. This structure is one of those on the listing of structures in Appendix 2C of the NYSDOT Bridge Manual whose existing clearance can be retained as agreed by FHWA on December 12, 1991.
4. Design Criteria for Ramps N & A were established using the criteria applicable to the adjacent operational conditions. As Ramp N exits the I-190 the design condition is an expressway ramp but as the ramp extends north of the Ramp P bridge and transitions to Ramp A conditions change to Urban Arterial Other with Non-expressway Ramp or Free Flow Turning Roadway. The operational conditions than continue to change as Ramp A transitions to the low speed travel present in the PBA Plaza. The changes in Design Criteria follow the transitions
5. The Regional Traffic engineer has concurred that the use of a design speed of 35 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume. (Refer to section 2.3.1.5 speeds and delays and Appendix B of this report for additional information on speed data)

* Non-Standard Feature

** Non-Standard Feature (Existing and Proposed)

Critical Design Elements for Ramp N / Ramp A Overlap with Shoulders[4]

Sta A 29+00 to A 33+25

PIN:	5760.80		**NHS (Y/N):**	Yes
Route No. & Name:	Ramp A		**Functional Classification:**	Urban Principal Arterial Other
Project Type:	Reconstruction		**Design Classification:**	Free Flow Turning Roadway
% Trucks:	14%		**Terrain:**	Rolling
ADT (2040):	22800		**Truck Access/Qualifying:**	Qualifying Highway

	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITIONS	PROPOSED CONDITION	REFERENCE
1	Design Speed[2, 5]	35 mph	35 mph	35 mph	HDM § 2.7.5.2.A
2	Travel Lane widths: Single lane Two Lanes	12.0 ft. 2 - 12.0 ft. (R=>1000 ft.)	12.0 ft.	13.0 ft	HDM § 2.7.5.2.B Exhibit 2-9b (case IIC) Exhibit 2-9b (case IIIC)
3	Shoulder Width (min)	Left - 3.0 ft. Right - 6.0 ft.	1.4 ft.* 1.2 ft. (curb offset)	3.0 ft. 6.0 ft.	HDM Exhibit 2-10
4	Bridge Roadway Width	Same as travelway (3 - 12 ft lanes, 45 ft wide overall,)	No Bridge	No Bridge	NYSDOT Bridge Manual § 2.3.1
5	Maximum Grade	6.0%	3.5%	3.8%	HDM Exhibit 2-10
6	Minimum Radius	340 ft. (@ 6.0% SE)	1540 ft.	1500 ft.	HDM Exhibit 2-10
7	Superelevation	6% (max.)	6% (max.)	6% (max.)	HDM Exhibit 2-10 HDM § 2.7.5.2.G
8	Stopping Sight Distance (min)	250 ft.	360 ft.	326 ft.	HDM Exhibit 2-10
9	Horizontal Clearance (min)	Left - 3.0 ft Right - greater of shld. width or 6.0 ft	2.3 ft.* 9.0 ft.	Left - 3.0 ft. Right - 6.0 ft.	HDM § 2.7.5.2.I
10	Vertical Clearance[3]	16.0 ft. (min) 16.5 ft. (desired)	Unlimited	Unlimited	NYSDOT Bridge Manual § 2.4.1
11	Pavement Cross Slope (min) / (max)	1.5% / 2.0%	2.0%	2.0%	HDM § 2.7.5.2.K
12	Max Rollover Between Lanes Between EP/Shld.	4.0% max 8.0% max	4.0% max 8.0% max	4.0% max 8.0% max	HDM § 2.7.5.2.L
13	Structural Capacity	AASHTO HL-93 & NYS design permit vehicle	No Bridge	No Bridge	NYSDOT Bridge Manual § 2.6.1
15	Control of Access	Full	Full	Full	HDM § 2.7.5.2.O
16	Pedestrian Accommodations	N/A	N/A	N/A	HDM § 2.7.5.2.P

NOTES

1. All existing conditions were acquired from GIS database mapping or As-Builts (as available)
2. Connection from Ramp N (40 mph) to Peace Bridge Plaza
3. Vertical clearance for Pedestrian bridges shall be 1.0 ft greater (17.0' min. & 17.5' desirable)
4. Design Criteria for Ramps N & A were established using the criteria applicable to the adjacent operational conditions. As Ramp N exits the I-190 the design condition is an expressway ramp but as the ramp extends north of the Ramp P bridge and transitions to Ramp A conditions change to Urban Arterial Other with Non-expressway Ramp or Free Flow Turning Roadway. The operational conditions than continue to change as Ramp A transitions to the low speed travel present in the PBA Plaza. The changes in Design Criteria follow the transitions
5. The Regional Traffic engineer has concurred that the use of a design speed of 35 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume. (Refer to section 2.3.1.5 speeds and delays and Appendix B of this report for additional information on speed data)

Critical Design Elements for Ramp A with Curb[4]

Sta 33+25 to Sta 37+50

PIN:	5760.80		**NHS (Y/N):**	Yes
Route No. & Name:	Ramp A		**Functional Classification:**	Urban Principal Arterial Other
Project Type:	Reconstruction		**Design Classification:**	Free Flow Turning Roadway
% Trucks:	14%		**Terrain:**	Rolling
ADT (2040):	22800		**Truck Access/Qualifying:**	Qualifying Highway

	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITIONS	PROPOSED CONDITION	REFERENCE
1	Design Speed[2, 5]	25 mph	25 mph	25 mph	HDM § 2.7.5.2.A
2	Travel Lane widths: Single Lane (curbs) Two Lane (curbs w/ 1.0' offset, 32'/2 lanes)	23.0 ft. 16.0 ft. (R=150 ft.)	16.0 ft.	10.0 ft.	HDM § 2.7.5.2.B Exhibit 2-9b (case IIC) Exhibit 2-9b (case IIC) Exhibit 2-9b (case IIIC)
3	Curb Offset	2.0 ft Desirable 0.0 ft Minimum	Left - 1.4 ft. Right- 1.2 ft.	Left/Right - 1.0 ft.	HDM Exhibit 2-10
4	Bridge Roadway Width	Same as travelway (three 16 ft lanes, 52 ft wide overall,)	No Bridge	No Bridge	NYSDOT Bridge Manual § 2.3.1
5	Maximum Grade	7.0%	3.5%	3.5%	HDM Exhibit 2-10
6	Minimum Radius	144 ft. (@ 6.0% SE)	180.0 ft.	182 ft.	HDM Exhibit 2-10
7	Superelevation	6% (max.)	6% (max.)	6% (max.)	HDM Exhibit 2-10 HDM § 2.7.5.2.G
8	Stopping Sight Distance (min)	155 ft.	360 ft.	326 ft.	HDM Exhibit 2-10
9	Horizontal Clearance (min) w/ curb	1.5 ft. behind curb min. 3.0 ft. behind curb @ Intsec.	2.0 ft. 3.0 ft.	Left - 1.0 ft.[6] Right - 3.0 ft.	HDM § 2.7.5.2.I
10	Vertical Clearance[3]	16.0 ft (min) 16.5 ft (desired)	Unlimited	Unlimited	NYSDOT Bridge Manual § 2.4.1
11	Pavement Cross Slope (min) / (max)	1.5% / 2.0%	2.0%	2.0%	HDM § 2.7.5.2.K
12	Max Rollover Between Lanes Between EP/Shld.	4.0% max 8.0% max	4.0% max 8.0% max	4.0% max 8.0% max	HDM § 2.7.5.2.L
13	Structural Capacity	AASHTO HL-93 & NYS design permit vehicle	No Bridge	No Bridge	NYSDOT Bridge Manual § 2.6.1
15	Control of Access	Full	Full	Full	HDM § 2.7.5.2.O
16	Pedestrian Accommodations	N/A	N/A	N/A	HDM § 2.7.5.2.P

NOTES

1. All existing conditions were acquired from GIS database mapping or As-Builts (as available)
2. Connection from Ramp N (40 mph) to Peace Bridge Plaza
3. Vertical clearance for Pedestrian bridges shall be 1.0 ft greater (17.0' min. & 17.5' desirable)
4. Design Criteria for Ramps N & A were established using the criteria applicable to the adjacent operational conditions. As Ramp N exits the I-190 the design condition is an expressway ramp but as the ramp extends north of the Ramp P bridge and transitions to Ramp A conditions change to Urban Arterial Other with Non-expressway Ramp or Free Flow Turning Roadway. The operational conditions than continue to change as Ramp A transitions to the low speed travel present in the PBA Plaza. The changes in Design Criteria follow the transitions
5. The Regional Traffic engineer has concurred that the use of a design speed of 25 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume. (Refer to section 2.3.1.5 speeds and delays and Appendix B of this report for additional information on speed data)
6. Horizontal clearance on the left side of travelway is a 1'-0" offset to front face of a 2'-0" concrete barrier.

* Non-Standard Feature

** Non-Standard Feature (Existing and Proposed)

Critical Design Elements for Ramp N Extension[3]

N 13+00 to N 22+45

PIN:	5760.80		**NHS (Y/N):**	No
Route No. & Name:	Ramp N Extension		**Functional Classification:**	Urban Principal Arterial Other
Project Type:	Reconstruction		**Design Classification:**	Free Flow Turning Roadway
% Trucks:	5%		**Terrain:**	Rolling
ADT (2040):	6500		**Truck Access/Qualifying:**	Qualifying Highway

	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITIONS	PROPOSED CONDITION	REFERENCE
1	Design Speed[4]	30 mph	30 mph	30 mph	HDM § 2.7.5.2.A
2	Travel Lane width (min)	12 ft.	12 ft.	12 ft.	HDM § 2.7.5.2.B Exhibit 2-9b
3	Shoulder Width:	Left - 3.0 ft. Right - 6.0 ft.	varies 0 to 10 ft.* varies 4 to 13 ft.*	3.0 ft. 6.0 ft.	HDM Exhibit 2-10
4	Bridge Roadway Width	Same as travelway (3.0 ft .+ 15.0 ft. + 6.0 ft.)	No Bridge	No Bridge	NYSDOT Bridge Manual § 2.3.1
5	Maximum Grade	7.0%	2.0%	6.0%	HDM Exhibit 2-10
6	Minimum Radius	231 ft. (@ 6.0% SE)	1027 ft.	1000 ft.	HDM Exhibit 2-10
7	Superelevation	6% (max.)	6% (max.)	6% (max.)	HDM Exhibit 2-10 HDM § 2.7.5.2.G
8	Stopping Sight Distance (min)	200 ft.	N/A	215.8 ft.	HDM Exhibit 2-10
9	Horizontal Clearance (min)	Left - 3.0 ft. Right - greater of shld. width or 6.0 ft.	6 ft. 2.5 ft. *	3.0 ft. 6.0 ft.	HDM § 2.7.5.2.I
10	Vertical Clearance	16.0 ft. (min.) 16.5 ft. (desired)	Ramp B - 14.917 ft.* Ramp D - N/A	16.83 ft. 16.0 ft.	NYSDOT Bridge Manual § 2.4.1
11	Pavement Cross Slope (min) / (max)	1.5% / 2.0%	2.0%	2.0%	HDM § 2.7.5.2.K
12	Max Rollover Between Lanes Between EP/Shld.	4.0% max 8.0% max	4.0% max 8.0% max	4.0% max 8.0% max	HDM § 2.7.5.2.L
13	Structural Capacity	AASHTO HL-93 & NYS design permit vehicle	N/A	N/A	NYSDOT Bridge Manual § 2.6.1
14	Level of Service	C (min.); conditions may necessitate D	E*	C	HDM § 2.7.5.2.O
15	Control of Access	Full	Full	Full	HDM § 2.7.5.2.O
16	Pedestrian Accommodations	N.A.	N/A	N/A	HDM § 2.7.5.2.P

NOTES

1. All existing conditions were acquired from GIS database mapping or As-Builts (as available)
2. Vertical clearance for Pedestrian bridges shall be 1.0 ft greater (17.0' min. & 17.5' desirable)
3. Design Criteria for Ramps N & A were established using the criteria applicable to the adjacent operational conditions. As Ramp N exits the I-190 the design condition is an expressway ramp but as the ramp extends north of the Ramp P bridge and transitions to Ramp A conditions change to Urban Arterial Other with Non-expressway Ramp or Free Flow Turning Roadway. The operational conditions than continue to change as Ramp A transitions to the low speed travel present in the PBA Plaza. The changes in Design Criteria follow the transitions
4. The Regional Traffic engineer has concurred that the use of a design speed of 30 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume. (Refer to section 2.3.1.5 speeds and delays and Appendix B of this report for additional information on speed data)

* Non-Standard Feature

** Non-Standard Feature (Existing and Proposed)

Critical Design Elements for Ramp C
Sta. C 21+92 to C 27+00

PIN:	5760.80	**NHS (Y/N):**	Yes
Route No. & Name:	Ramp C	**Functional Classification:**	Urban Principal Arterial Other
Project Type:	Reconstruction	**Design Classification:**	Free Flow Turning Roadway
% Trucks:	<1%	**Terrain:**	Rolling
ADT (2040):	850 (No-Build); 3400 (Build)	**Truck Access/Qualifying:**	Within 1 mile of Qualifying Highway

	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITIONS	PROPOSED CONDITION	REFERENCE
1	Design Speed[2, 4]	30 mph	not posted (≤ 30 mph)	30 mph	HDM § 2.7.5.2.A
2	Travel Lane width (min)	12 ft.	Varies 12.0 ft to 15.9 ft.	12 ft.[3]	HDM § 2.7.5.2.B Exhibit 2-9b (case IIC) may reduce 12' if R >1000'
3	Shoulder Width:	Left - 3.0 ft. Right - 6.0 ft.	Varies 3.0 ft. to 8.5 ft. Varies 4.6 ft. to 12.8 ft.*	4.0 ft. 6.0 ft.	HDM Exhibit 2-10,
4	Bridge Roadway Width	Same as travelway (one 12 ft lane, 22 ft wide overall,)	No Bridge	No Bridge	NYSDOT Bridge Manual § 2.3.1
5	Maximum Grade	7.0%	6.0%	5.0%	HDM Exhibit 2-10
6	Minimum Radius[2]	231 ft. (6.0% SE)	900 ft.	1100 ft.	HDM Exhibit 2-10
7	Superelevation	6% (max.)	unknown	6% (max.)	HDM Exhibit 2-10 HDM § 2.7.5.2.G
8	Stopping Sight Distance (min)	200 ft.	>200 ft.	202 ft.	HDM Exhibit 2-10
9	Horizontal Clearance (min)	Left - 3.0 ft. Right - greater of shld. width or 6.0 ft.	3.0 ft. 4.6 ft.*	4.0 ft. 6.0 ft.	HDM § 2.7.5.2.I
10	Vertical Clearance	16.0 ft (min) 16.5 ft (desired)	Unlimited	Unlimited	NYSDOT Bridge Manual § 2.4.1
11	Pavement Cross Slope (min) / (max)	1.5% / 2.0%	2.0%	2.0%	HDM § 2.7.5.2.K
12	Max Rollover Between Lanes Between EP/Shld.	4.0% max 8.0% max	4.0% max 8.0% max	4.0% max 8.0% max	HDM § 2.7.5.2.L
13	Structural Capacity	AASHTO HL-93 & NYS design permit vehicle	No Bridge	No Bridge	NYSDOT Bridge Manual § 2.6.1
15	Control of Access	Full	Full	Full	HDM § 2.7.5.2.O
16	Pedestrian Accommodations	N/A	N/A	N/A	HDM § 2.7.5.2.P

NOTES

1. All existing conditions were acquired from GIS database mapping or As-Builts (as available)
2. Design speed and minimum Radius Criteria are shown for the Ramp Proper. These criteria do not pertain to the ramp terminal. In this case the entrance to Ramp C from the plaza is configured for the slow moving traffic (15 mph) exiting the custom's inspection area after coming to a full stop for the inspection process.
3. Lane width at the beginning of the Ramp Proper (sta 22+00) is 23.0 ft to accommodate truck turning movements
4. The Regional Traffic engineer has concurred that the use of a design speed of 30 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume. (Refer to section 2.3.1.5 speeds and delays and Appendix B of this report for additional information on speed data)

* Non-Standard Feature

Critical Design Elements for Ramp D

Sta. D 8+60 to D 24+00

PIN:	5760.80	**NHS (Y/N):**	Yes
Route No. & Name:	Ramp D	**Functional Classification:**	Urban Principal Arterial Other
Project Type:	New construction	**Design Classification:**	Ramp (direct connection)
% Trucks:	7%	**Terrain:**	Rolling
ADT (2040):	2800	**Truck Access/Qualifying:**	Qualifying Highway

	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITIONS	PROPOSED CONDITION	REFERENCE
1	Design Speed[2, 5]	40 mph	New Ramp	40 mph	HDM § 2.7.5.2.A
2	Travel Lane width (min)	15.0 ft.	New Ramp	16 ft.[6]	HDM § 2.7.5.2.B Exhibit 2-9a (one lane)
3	Shoulder Width:	Left - 3.0 ft. Right - 6.0 ft.	New Ramp	3.0 ft. 6.0 ft.	HDM Exhibit 2-10
4	Bridge Roadway Width over Ramp N[6]	Same as travelway	New Ramp	varies 39 ft. to 16 ft. (48 ft. to 25 ft. overall)	NYSDOT Bridge Manual § 2.3.1
	Bridge Roadway Width over Ramp S	1-16 ft lane, 25 ft wide overall		16 ft /25 ft. overall	
	Bridge Roadway Width over CSX	1-16 ft lane, 25 ft wide overall		16 ft /25 ft. overall	
5	Maximum Grade	6.0%	New Ramp	5.9%	HDM Exhibit 2-10
6	Minimum Radius[2]	485 ft. (@ 6.0% SE)	New Ramp	940 ft.	HDM Exhibit 2-10
7	Superelevation	6% (max.)	New Ramp	6% (max.)	HDM Exhibit 2-10 HDM § 2.7.5.2.G
8	Stopping Sight Distance (min)	305 ft.	New Ramp	329 ft.	HDM Exhibit 2-10
9	Horizontal Clearance (min)	Left - 3.0 ft. Right - greater of shld. width or 6.0 ft.	New Ramp	3.0 ft. 6.0 ft.	HDM § 2.7.5.2.I
10	Vertical Clearance[3]	16.0 ft. (min) 16.5 ft. (desired)	New Ramp	Unlimited	NYSDOT Bridge Manual § 2.4.1
11	Pavement Cross Slope (min) / (max)	1.5% / 2.0%	New Ramp	2.0%	HDM § 2.7.5.2.K
12	Max Rollover Between Lanes Between EP/Shld.	4.0% max 8.0% max	New Ramp	4.0% max 8.0% max	HDM § 2.7.5.2.L
13	Structural Capacity	AASHTO HL-93 & NYS design permit vehicle	New Ramp	AASHTO HL-93 & NYS design permit vehicle	NYSDOT Bridge Manual § 2.6.1
14	Level of Service	C (min.); conditions may necessitate D	New Ramp	F[4]	HDM § 2.7.5.2.N
15	Control of Access	Full	New Ramp	Full	HDM § 2.7.5.2.O
16	Pedestrian Accommodations	N.A.	New Ramp	N/A	HDM § 2.7.5.2.P

NOTES

1. All existing conditions were acquired from GIS database mapping or As-Builts (as available)
2. Design speed and minimum Radius Criteria are shown for the Ramp Proper. These criteria do not pertain to the ramp terminal. In this case the entrance to Ramp D from the plaza is configured for the slow moving traffic (15 mph) exiting the custom's inspection area after coming to a full stop for the inspection process.
3. Vertical clearance for Pedestrian bridges shall be 1.0 ft greater (17.0' min. & 17.5' desirable)
4. LOS F occurs at the I-190 northbound merge.
5. The Regional Traffic engineer has concurred that the use of a design speed of 40 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume. (Refer to section 2.3.1.5 speeds and delays and Appendix B of this report for additional information on speed data)
6. The Ramp D entrance has been widened to accommodate the turning movement for trucks exiting the Peace Bridge Plaza. The maximum width of 39 feet at station D 7+60 tapers to meet the proposed travel Lane width of 16.0 feet at station D 9+00.

* Non-Standard Feature

** Non-Standard Feature (Existing and Proposed)

Critical Design Elements for Ramp P

PIN:	5760.80		**NHS (Y/N):**	Yes
Route No. & Name:	Ramp P		**Functional Classification:**	Urban Principal Arterial Interstate
Project Type:	Reconstruction		**Design Classification:**	Ramp (diagonal)
% Trucks:	3%		**Terrain:**	Rolling
ADT (2040):	8000		**Truck Access/Qualifying:**	Qualifying Highway

	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITIONS	PROPOSED CONDITION	REFERENCE
1	Design Speed[2, 4]	35 mph	not posted (< 30 mph)	35 mph	HDM § 2.7.5.2.A
2	Travel Lane width (min)	15.0 ft. (R= 800 ft.)	15.5 ft.	15.5 ft.	HDM § 2.7.5.2.B Exhibit 2-9a
3	Shoulder Width:	Left - 3.0 ft. Right - 6.0 ft.	varies 3.0 to 6.0 ft. varies 6.0 to 10.0 ft.	3.0 ft. 6.0 ft.	HDM Exhibit 2-10
4	Bridge Roadway Width	Same as travelway (one 15 ft. lane, 24 ft. wide overall,)	24.5 ft.	24.5 ft. (exist. bridge)	NYSDOT Bridge Manual § 2.3.1
5	Maximum Grade	6.0%	2.0%	2.3%	HDM Exhibit 2-10
6	Minimum Radius[2]	340 ft. (@ 6.0% SE)	350 ft.	414 ft.	HDM Exhibit 2-10
7	Superelevation	6% (max.)	4.5%*	6% (max.)	HDM Exhibit 2-10 HDM § 2.7.5.2.G
8	Stopping Sight Distance (min)	250 ft.	> 200 ft.	258 ft.	HDM Exhibit 2-10
9	Horizontal Clearance (min)	Left - 3.0 ft. Right - greater of shld. width or 6.0 ft.	6.0 ft. 10 ft.	3.0 ft. 6.0 ft.	HDM § 2.7.5.2.I
10	Vertical Clearance	16.0 ft (min) 16.5 ft (desired)	Unlimited	Unlimited	NYSDOT Bridge Manual § 2.4.1
11	Pavement Cross Slope (min) / (max)	1.5% / 2.0%	2%	2.0%	HDM § 2.7.5.2.K
12	Max Rollover Between Lanes Between EP/Shld.	4.0% max 8.0% max	4.0% max 8.0% max	4.0% max 8.0% max	HDM § 2.7.5.2.L
13	Structural Capacity	AASHTO HL-93 & NYS design permit vehicle	Unknown	Unknown[3]	NYSDOT Bridge Manual § 2.6.1
14	Level of Service	C (min.); conditions may necessitate D	E**	F**	HDM § 2.7.5.2.N
15	Control of Access	Full	Full	Full	HDM § 2.7.5.2.O
16	Pedestrian Accommodations	N/A[5]	N/A[5]	N/A	HDM § 2.7.5.2.P

NOTES

1. All existing conditions were acquired from GIS database mapping or As-Builts (as available)
2. Design speed and minimum radius criteria are shown for the Ramp Proper. These criteria do not pertain to the ramp terminal. In this case the entrance to Ramp P is configured for the slow moving traffic turning from Porter Avenue. The departure radius is 100 ft.
3. The structure is not slated for rehabilitation/replacement under this contract and is outside the work limits of Ramp P.
4. The Regional Traffic engineer has concurred that the use of a design speed of 35 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume. (Refer to section 2.3.1.5 speeds and delays and Appendix B of this report for additional information on speed data)
5. There are no existing sidewalks along Ramp P however crosswalks are present for the sidewalks along Porter Ave. No Crosswalks are included as part of the Proposed Condition.

* Non-Standard Feature

** Non-Standard Feature (Existing and Proposed)

Critical Design Elements for Ramp PN

PIN:	5760.80		**NHS (Y/N):**	Yes
Route No. & Name:	Ramp PN		**Functional Classification:**	Urban Principal Arterial Other
Project Type:	New Construction		**Design Classification:**	Free Flow Turning Roadway
% Trucks:	4%		**Terrain:**	Rolling
ADT (2040):	7400		**Truck Access/Qualifying:**	Within 1 mile of Qualifying Highway

	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITIONS	PROPOSED CONDITION	REFERENCE
1	Design Speed[4]	30 mph	New Ramp	30 mph	HDM § 2.7.5.2.A
2	Travel Lane width (min)	15.0 ft. (R= 300 ft.)	New Ramp	19.0 ft.	HDM § 2.7.5.2.B Exhibit 2-9b
3	Shoulder Width:	Left - 3.0 ft. Right - 6.0 ft.	New Ramp	3.0 ft. 6.0 ft.	HDM Exhibit 2-10
4	Bridge Roadway Width	Same as travelway (one 15 ft. lane, 24 ft. wide overall,)	New Ramp	No bridge	NYSDOT Bridge Manual § 2.3.1
5	Maximum Grade	7.0%	New Ramp	6.6%	HDM Exhibit 2-10
6	Minimum Radius	231 ft. (@ 6.0% SE)	New Ramp	360 ft.[3]	HDM Exhibit 2-10
7	Superelevation	6% (max.)	New Ramp	6% (max.)	HDM Exhibit 2-10 HDM § 2.7.5.2.G
8	Stopping Sight Distance (min)	200 ft.	New Ramp	200 ft.	HDM Exhibit 2-10
9	Horizontal Clearance (min)	Left - 3.0 ft. Right - greater of shld. width or 6.0 ft.	New Ramp	Left - 3.0 ft. Right - 6.0 ft.	HDM § 2.7.5.2.I
10	Vertical Clearance[2]	16.0 ft. (min) 16.5 ft. (desired)	New Ramp	Unlimited	NYSDOT Bridge Manual § 2.4.1
11	Pavement Cross Slope (min) / (max)	1.5% / 2.0%	New Ramp	2.0%	HDM § 2.7.5.2.K
12	Max Rollover Between Lanes Between EP/Shld.	4.0% max 8.0% max	4.0% max 8.0% max	4.0% max 8.0% max	HDM § 2.7.5.2.L
13	Structural Capacity	AASHTO HL-93 & NYS design permit vehicle	New Ramp	No Bridge	NYSDOT Bridge Manual § 2.6.1
15	Control of Access	Full	New Ramp	Full	HDM § 2.7.5.2.O
16	Pedestrian Accommodations	N/A	New Ramp	N/A	HDM § 2.7.5.2.P

NOTES

1. All existing conditions were acquired from GIS database mapping or As-Builts (as available)
2. Vertical clearance for Pedestrian bridges shall be 1.0 ft greater (17.0' min. & 17.5' desirable)
3. Minimum radius of ramp does not include the departure radius at Porter Avenue
4. The Regional Traffic engineer has concurred that the use of a design speed of 30 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume. (Refer to section 2.3.1.5 speeds and delays and Appendix B of this report for additional information on speed data)

* Non-Standard Feature

Critical Design Elements for Porter Avenue

PIN:	5760.80	**NHS (Y/N):**	No
Route No. & Name:	Porter Ave.	**Functional Classification:**	Urban Principal Arterial Other
Project Type:	Reconstruction	**Design Classification:**	Urban Arterial
% Trucks:	3%	**Terrain:**	Rolling
ADT (2040):	16000	**Truck Access/Qualifying:**	Within 1 mile of Qualifying Highway

	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITIONS	PROPOSED CONDITION	REFERENCE
1	Design Speed[2]	30 mph	30 mph	30 mph	HDM § 2.7.2.2.A
2	Travel Lane width [5] Turn Lane width (min.)	12.0 ft. 11.0 ft.	10.0 ft.** 10.0 ft.**	10.0 ft.** 10.0 ft.**	HDM § 2.7.2.2.B (HDM Exhibit 2.4)
3	Shoulder Width:	0 ft. to 4.0 ft. (min.) with multi-use path	Left - 1.5 ft. Right - 1.5 ft.	Left - 2.0 ft. Right - 2.0 ft.	HDM § 2.7.2.2.C (HDM Exhibit 2.4)
4	Bridge Roadway Width	Same as travelway	49.5 ft.	3-12 ft. lanes (57 ft. overall)	NYSDOT Bridge Manual § 2.3.1
5	Maximum Grade	9.0%	2.0%	2.0%	HDM § 2.7.2.2.D (HDM Exhibit 2.4)
6	Minimum Radius	250 ft. (@ 4.0% SE)	> 250 ft.	> 250 ft.	HDM Exhibit 2-4
7	Maximum Superelevation	4.0%	4.0%	4.0%	HDM § 2.7.2.2.G
8	Stopping Sight Distance (min)	200 ft.	> 200 ft.	218.5 ft.	HDM Exhibit 2-4
9	Horizontal Clearance (from face of curb)	0 ft. with barrier 1.5 ft. without barrier 3 ft. at intersections	N/A 2.0 ft. 3.0 ft.	N/A 2.0 ft. 3.0 ft.	HDM § 2.7.2.2.I
10	Vertical Clearance[3]	14.0 ft. (min) 14.5 ft. (desired)	Unlimited	Unlimited	NYSDOT Bridge Manual § 2.4.1
11	Pavement Cross Slope (min) / (max)	1.5% / 2.0%	2%	2.0%	HDM § 2.7.2.2.K
12	Max Rollover Between Lanes Between EP/Shld.	4.0% max 8.0% max	4.0% max 8.0% max	4.0% max 8.0% max	HDM § 2.7.2.2.L
13	Structural Capacity	AASHTO HL-93 & NYS design permit vehicle	Unknown	Unknown	NYSDOT Bridge Manual § 2.6.1
16	Pedestrian Accommodations	5.0 ft. (both sides)	5.0 ft. (both sides)	N/A	HDM § 2.7.2.2.N (refer to HDM ch. 18)

NOTES

1. All existing conditions were acquired from GIS database mapping or As-Builts (as available)
2. The Area Character has been identified as Central Business District.
3. Vertical clearance for Pedestrian bridges shall be 1.0 ft greater (15.0' min. & 15.5' desirable)
4. The Regional Traffic engineer has concurred that the use of a design speed of xx mph is consistent with the anticipated off-peak 85th percentile speed
5. Roadway is within 1.0 mile of Qualifying Highway, Minimum Lane width is 12.0 feet (HDM Sect. 2.5.3.2)

* Non-Standard Feature

** Non-Standard Feature (Existing and Proposed)

Design Parameters for Porter Avenue Roundabout

PIN:	5760.80		**Design Classification:**	Urban Arterial	
Route No. & Name:	Porter Ave		**Terrain:**	Rolling	
Project Type:	Reconstruction		**Truck Access/Qualifying:**	Within 1 mile of Qualifying Highway	

Element	**Parameter[1&2]**	**Porter Avenue East Bound**	**I-190 Entrance Ramp P**	**Entrance Ramp PN**	**Porter Avenue West Bound**
Max. Entry Speed < 25 mph	Entry Path Radius Method (Per Equation 6.3)[3]	24 mph	NA	NA	24 mph
Entry Width	12' – 23' 16'-20' typical	14 ft.	NA	NA	14 ft.
Entry Radius	65' – 150' 90'-110' typical	150 ft.	NA	NA	150 ft.
Approach Stopping Sight Distance	*Per Section 6.7.3*	OK	NA	NA	OK
Circulating Roadway Sight Distance	*Per Section 6.7.3*	OK			
Intersection Sight Distance	*Per Section 6.7.3*	OK	OK	OK	OK
Circulatory Roadway Width	12' – 23' 16' – 20' typical	20 feet			
Min. Exit Radius[4]	65' to ∞ 400' – 800' typical	150 ft.	120 ft.	∞ (Tangent)	150 ft.
Pedestrian Accommodations	Compliance HDM Ch. 18 & NCHRP 672	Pedestrian accommodations are not included A separate pedestrian path is provided.			

(1) Parameters per NCHRP Report 672, 'Roundabouts: An Informational Guide (2nd Edition)', and/or Main Office Intersection Design Squad, as applicable.

(2) Section numbers listed in the table above refer to NCHRP Report 672, 'Roundabouts: An Informational Guide (Second Edition)'

(3) Equation 6-3 on page 6-58 incorrectly contains an addition sign (+) as an operator. The correct operator should be a subtraction sign (-).

(4) Exit radius is measured along the right curb line at exit.

Key:

Not typical, desired, &/or preferred, but within general range of acceptance (highlight yellow)

Critical Design Elements for Shoreline Trail (Riverwalk)

PIN:	5760.80		**NHS (Y/N):**	No
Route No. & Name:	Riverwalk		**Functional Classification:**	Bikeway/Multi-use Path
Project Type:	Reconstruction		**Design Classification:**	Bikeway/Multi-use Path
% Trucks:	none		**Terrain:**	Rolling
ADT (2040):	N/A		**Truck Access/Qualifying:**	N/A

	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITIONS	PROPOSED CONDITION	REFERENCE
1	Design Speed[3]	18 mph	18 mph	18 mph	AASHTO[2] (section 5.2.4)
2	Travel Lane width (min)	10.0 ft.	varies 10.0 ft. to 14.0 ft.	10.0 ft.	AASHTO[2] (section 5.2.1)
3	Shoulder Width:	2.0 ft.	varies 2 ft. to 4 ft.	2.0 ft.	AASHTO[2] (section 5.2.1)
4	Bridge Roadway Width	12.0 ft.	12.5 ft.	17.0 ft.	NYSDOT Bridge Manual § 2.3.1
5	Maximum Grade	5.0%	unknown	5.0%	AASHTO[2] (section 5.2.7)
6	Minimum Radius	60 ft. no SE	36 ft.*	37 ft.	AASHTO[2] (table 5-2)
7	Maximum Superelevation	2.0%	Unknown	NC	AASHTO[2]
8	Stopping Sight Distance (min)	165 ft.	Unknown	402 ft.	AASHTO[2] (section 5.2.8)
9	Horizontal Clearance (min)	2.0 ft.	2.0 ft.	2.0 ft.	AASHTO[2] (section 5.2.1)
10	Vertical Clearance	8.0 ft. (min) 10.0 ft. (desired)	Unknown	Unlimited	AASHTO[2] (section 5.2.10)
11	Pavement Cross Slope (min) / (max)	2.0%	2.0%	2.0%	AASHTO[2] (section 5.2.6)
13	Structural Capacity	0.090 ksf Pedestrian Load H10 design vehicle	New Ramp	0.090 ksf Pedestrian Load H10 design vehicle	NYSDOT Bridge Manual § 2.6.4

Not typical, desired, &/or preferred, but within general range of acceptance (highlight yellow)

NOTES

1. All existing conditions were acquired from GIS database mapping or As-Builts (as available)
2. AASHTO Guide for the Development of Bicycle Facilities, 4th edition
3. The Regional Landscape Architect has concurred that the use of a design speed of 18 mph is consistent proposed use and within the range of functional class speeds for the terrain and volume.

* Non-Standard feature (existing)

Critical Design Elements for Porter Avenue Share Use Path

PIN:	5760.80		**NHS (Y/N):**	No
Route No. & Name:	Porter Ave Path		**Functional Classification:**	Shared Use Path
Project Type:	Reconstruction		**Design Classification:**	Shared Use Path
% Trucks:	none		**Terrain:**	Rolling
ADT (2040):	N/A		**Truck Access/Qualifying:**	N/A

	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITIONS	PROPOSED CONDITION	REFERENCE
1	Design Speed[3]	18 mph	New Path	18 mph	AASHTO[2] (section 5.2.4)
2	Travel Lane width (min)	10.0 ft.	New Path	10.0 ft.	AASHTO[2] (section 5.2.1)
3	Shoulder Width:	2.0 ft.	New Path	2.0 ft.	AASHTO[2] (section 5.2.1)
4	Bridge Roadway Width	NA	New Path	NA	NYSDOT Bridge Manual § 2.3.1
5	Maximum Grade	5.0%	New Path	4.0%	AASHTO[2] (section 5.2.7)
6	Minimum Radius	60 ft. no SE	New Path	327 ft.	AASHTO[2] (table 5-2)
7	Maximum Superelevation	2.0%	New Path	NC	AASHTO[2]
8	Stopping Sight Distance (min)	165 ft.	New Path	> 200 ft.	AASHTO[2] (section 5.2.8)
9	Horizontal Clearance (min)	2.0 ft.	New Path	Varies-2 ft. min. No horiz. clear. On bridge	AASHTO[2] (section 5.2.1)
10	Vertical Clearance	8.0 ft (min) 10.0 ft (desired)	New Path	Unlimited	AASHTO[2] (section 5.2.1)
11	Pavement Cross Slope (min) / (max)	2.0%	New Path	2.0%	AASHTO[2] (section 5.2.6)
12	Physical Separation	5.0 ft. form face of curb (min.)	New Path	5.0 ft.	AASHTO[2] (section 5.2.2)
13	Structural Capacity	See Porter Ave Bridge	New Path	Included w/ Porter Ave Vehicle Bridge	NYSDOT Bridge Manual § 2.6.4

NOTES

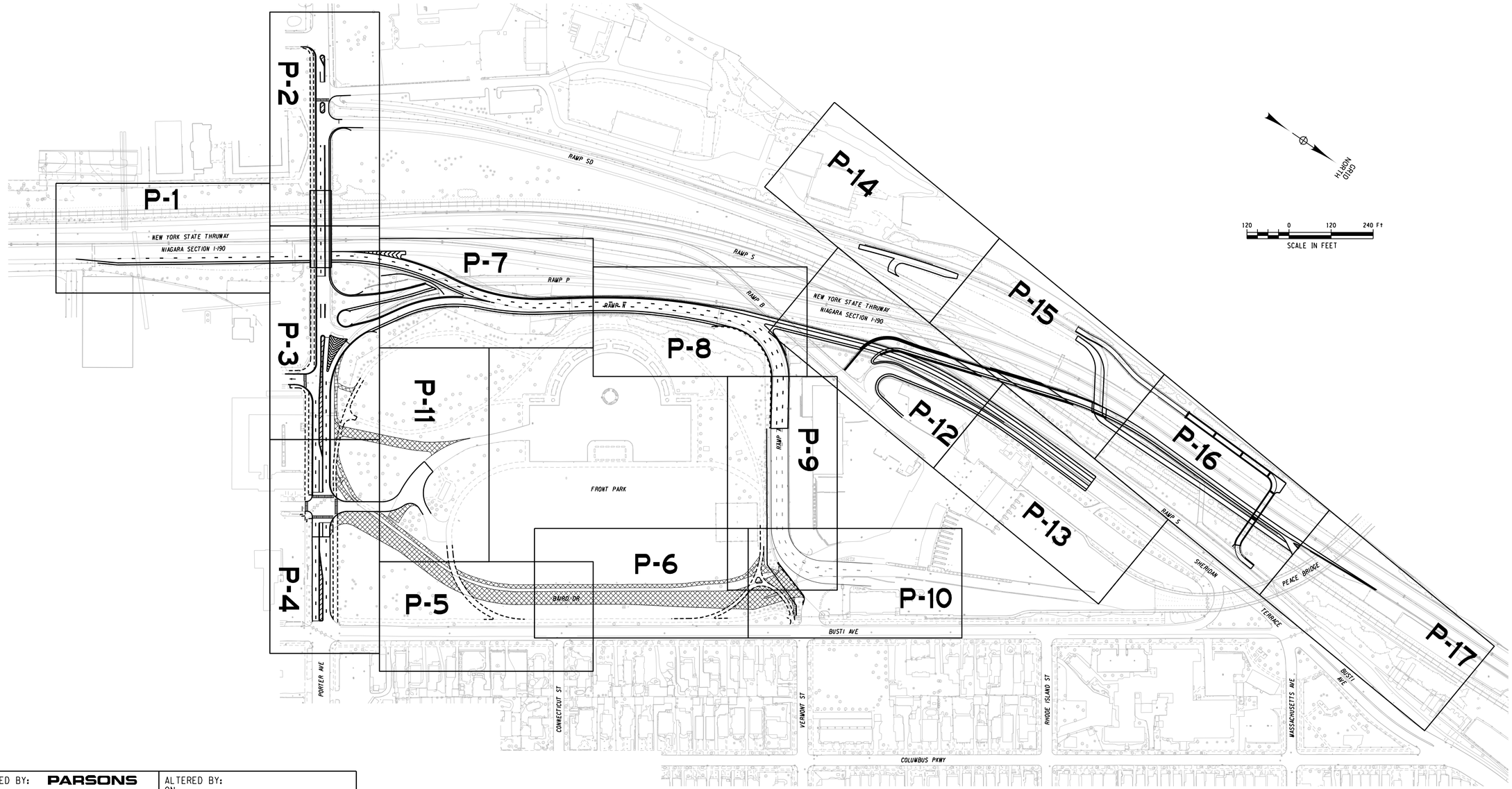
1. All existing conditions were acquired from GIS database mapping or As-Builts (as available)
2. AASHTO Guide for the Development of Bicycle Facilities, 4th edition
3. The Regional Landscape Architect has concurred that the use of a design speed of 18 mph is consistent proposed use and within the range of functional class speeds for the terrain and volume.

* Non-Standard feature (existing)

2. Build Alternative – With Option A – Traffic Signal at Porter Avenue

   a. Preliminary Plans

   b. Profiles



DETAIL PLANS - SHEET LAYOUT
SIGNALIZED INTERSECTION OPTION

TITLE

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES | CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

CONTRACT NUMBER D031040-01

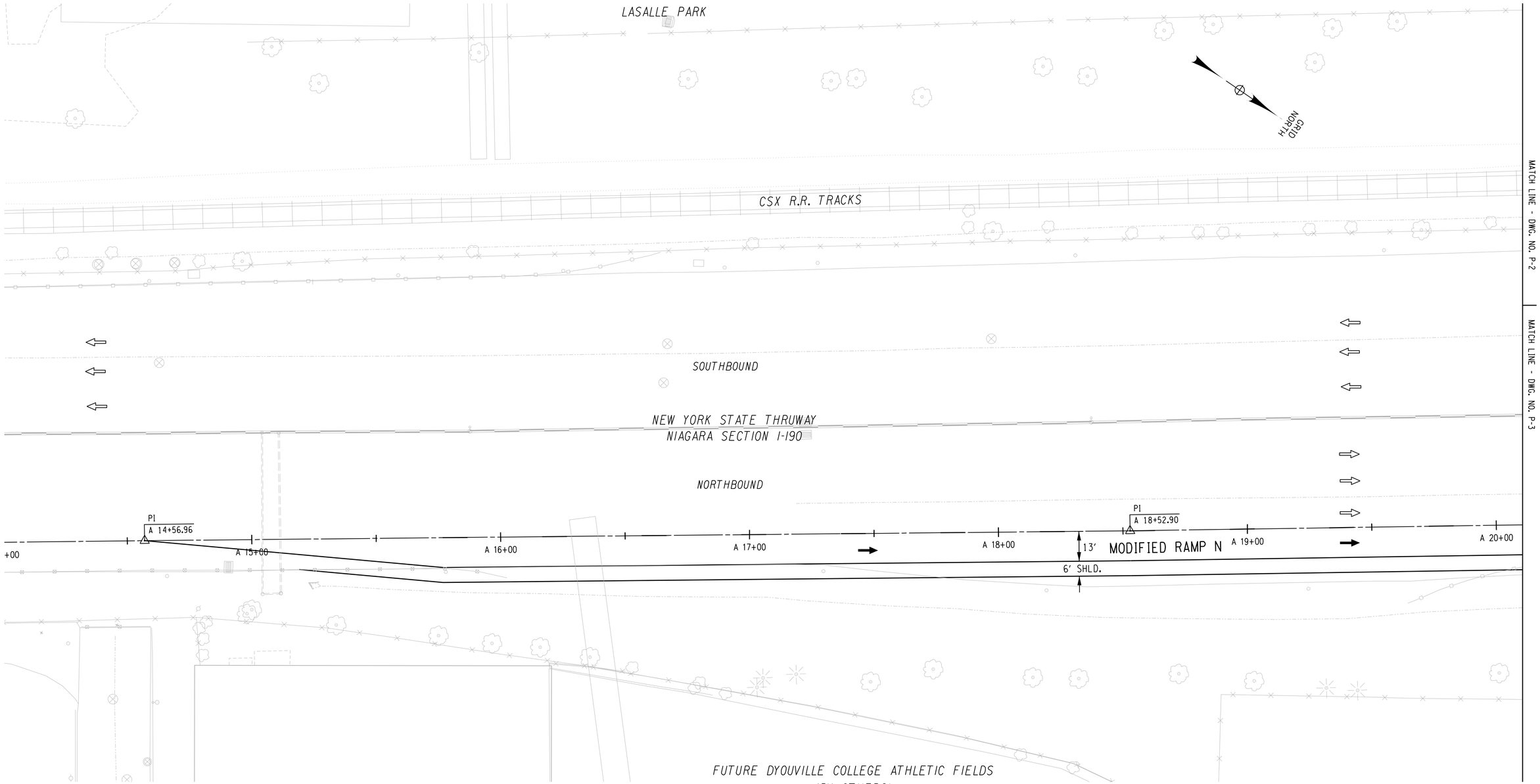
DRAWING NO.
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

DESIGN SUPERVISOR ____ JOB MANAGER ____ DESIGNED BY ____ DRAFTED BY ____ ESTIMATED BY ____ CHECKED BY ____ CHECKED BY ____

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



20 0 20 40 Ft

SCALE IN FEET

CHECKED BY

DRAFTED BY

ESTIMATED BY

DESIGNED BY

JOB MANAGER

DESIGN SUPERVISOR

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

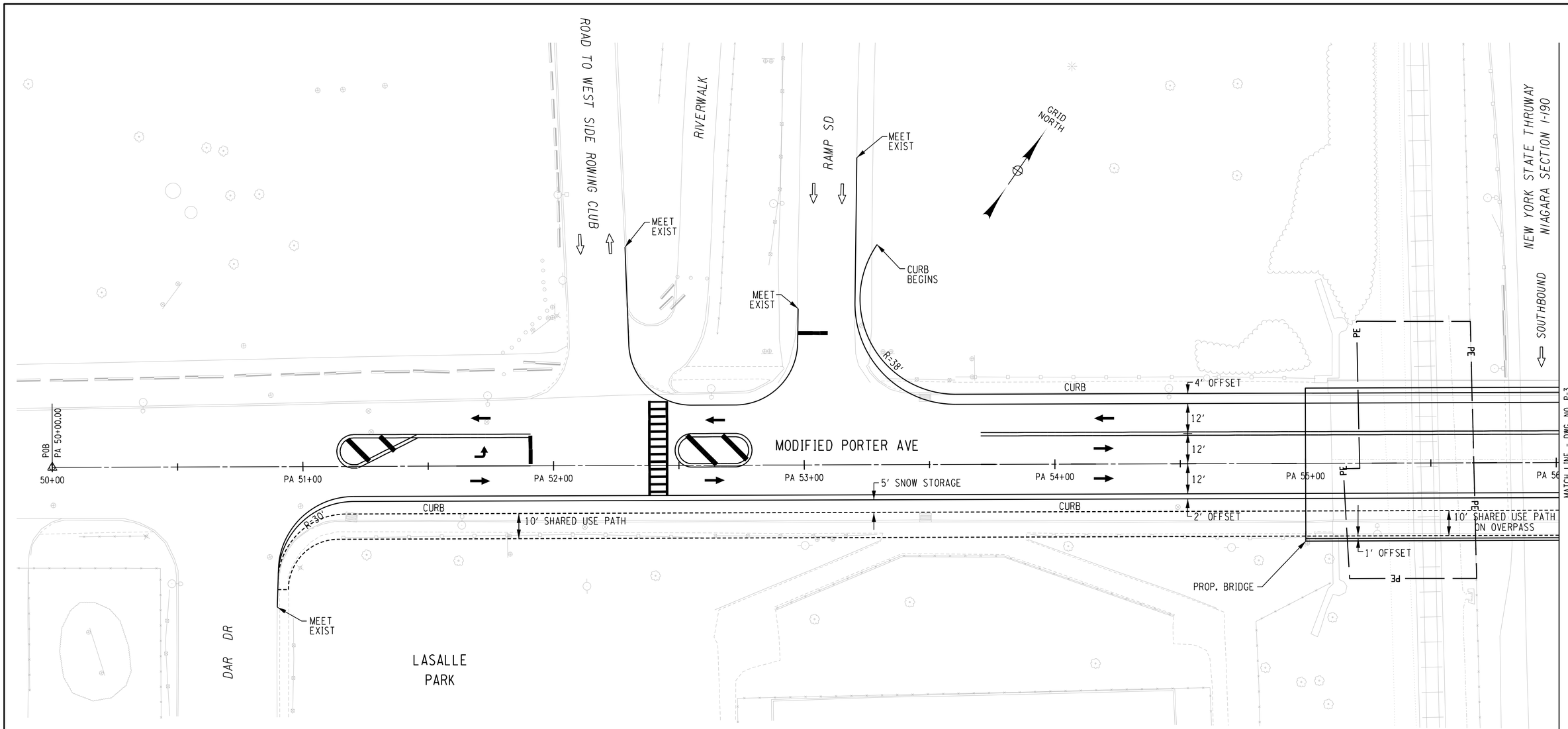
DETAIL PLANS
SIGNALIZED INTERSECTION OPTION

CONTRACT NUMBER
D031040-01

DRAWING NO. P-1
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:



20 0 20 40 Ft

SCALE IN FEET

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES | CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
SIGNALIZED INTERSECTION OPTION

CONTRACT NUMBER D031040-01

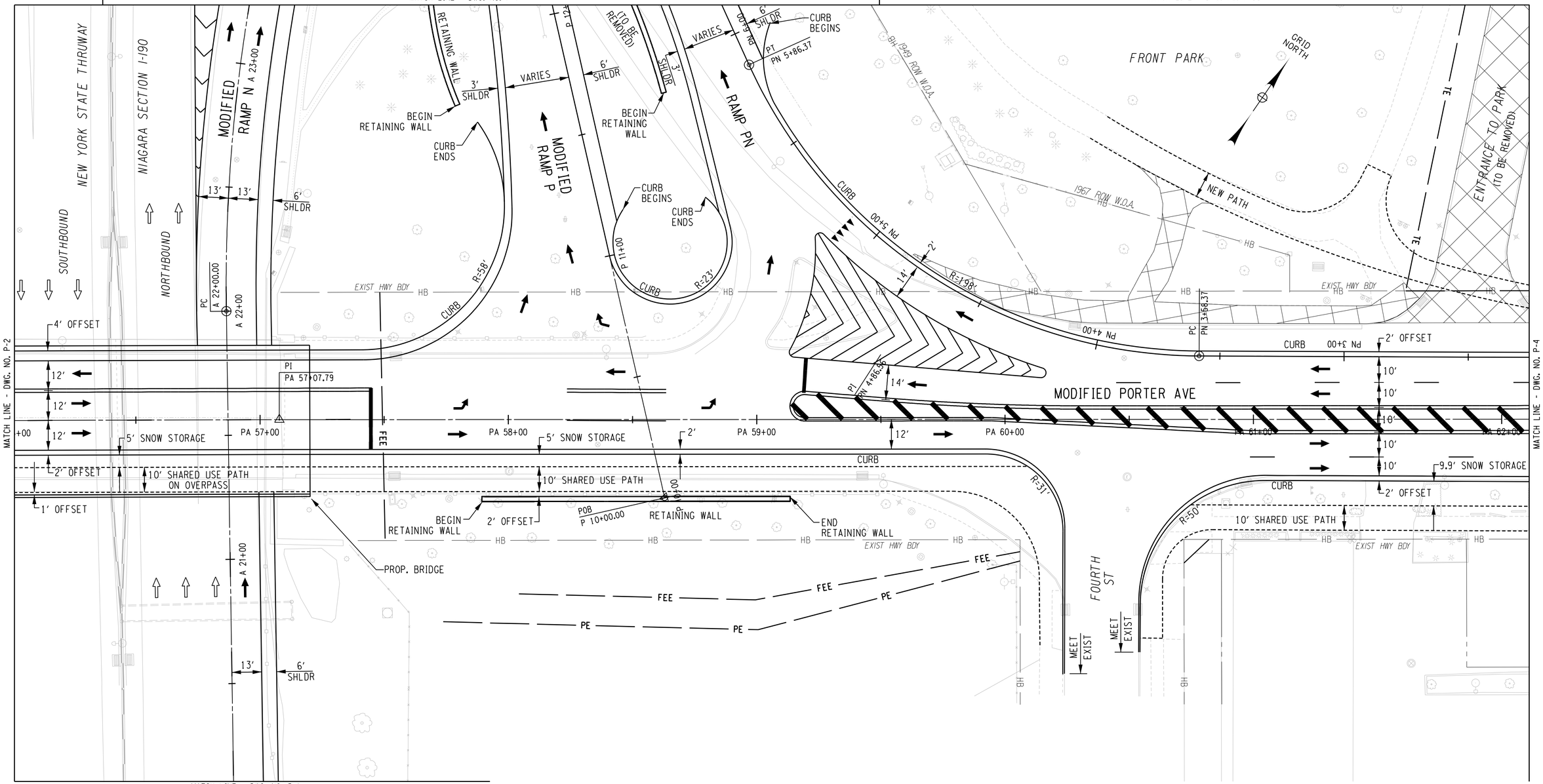
DRAWING NO. P-2
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

DESIGN SUPERVISOR ____ JOB MANAGER ____ DESIGNED BY ____ DRAFTED BY ____ ESTIMATED BY ____ CHECKED BY ____ CHECKED BY ____

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES | CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
SIGNALIZED INTERSECTION OPTION

CONTRACT NUMBER D031040-01

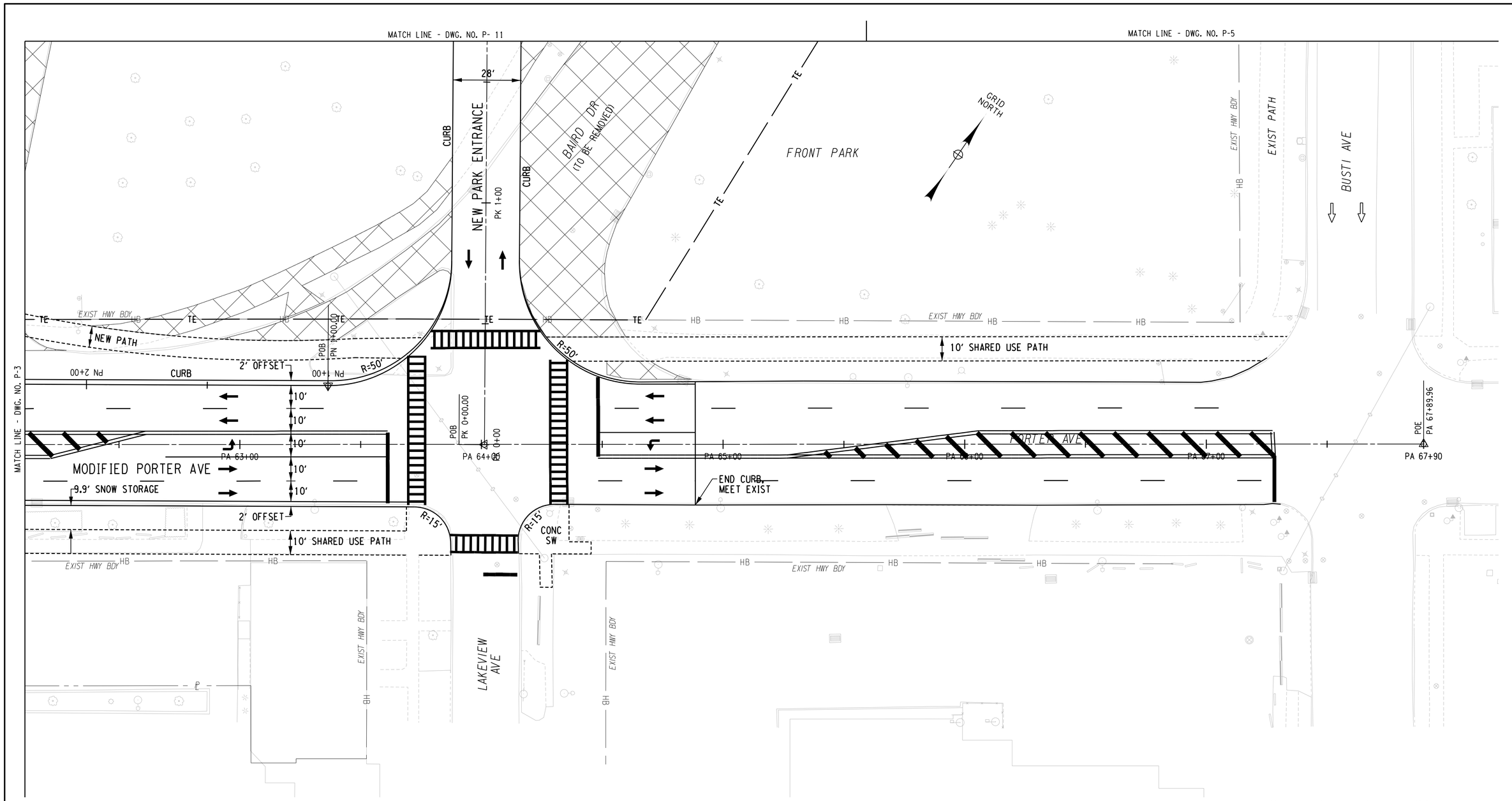
DRAWING NO. P-3
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

ESTIMATED BY ____ DRAFTED BY ____ CHECKED BY ____ DESIGNED BY ____ CHECKED BY ____ JOB MANAGER ____ DESIGN SUPERVISOR ____

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

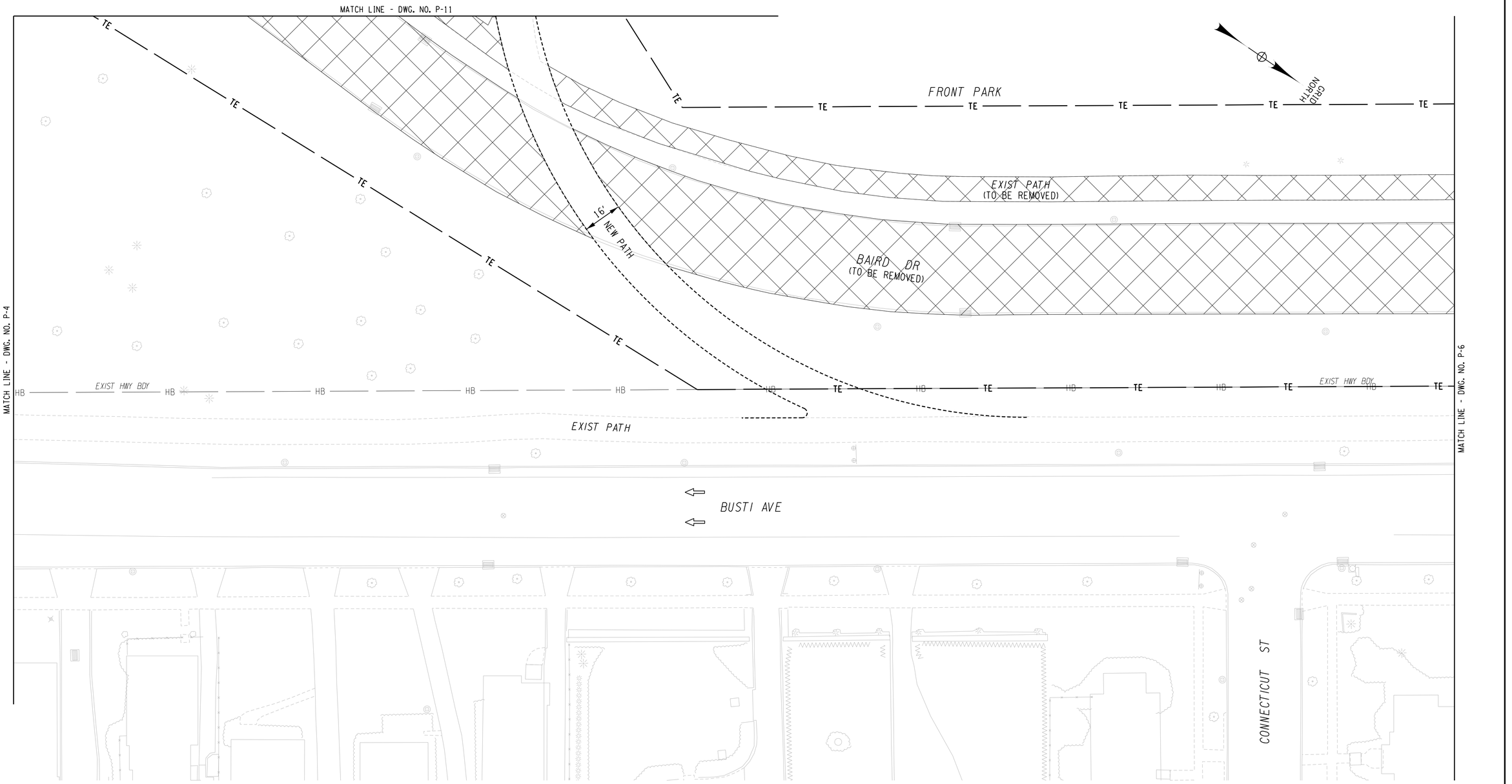
NY GATEWAY CONNECTIONS IMPROVEMENT PROJECT TO THE US PEACE BRIDGE PLAZA COUNTY: ERIE COUNTY, NY	PIN 5760.80 PS&E DATE	BRIDGES	CULVERTS	ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED DETAIL PLANS SIGNALIZED INTERSECTION OPTION	CONTRACT NUMBER D031040-01 DRAWING NO. P-4 SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

CHECKED BY
DRAFTED BY
ESTIMATED BY
DESIGNED BY
JOB MANAGER
DESIGN SUPERVISOR

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



20 0 20 40 Ft

SCALE IN FEET

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80

PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
SIGNALIZED INTERSECTION OPTION

CONTRACT NUMBER D031040-01

DRAWING NO. P-5

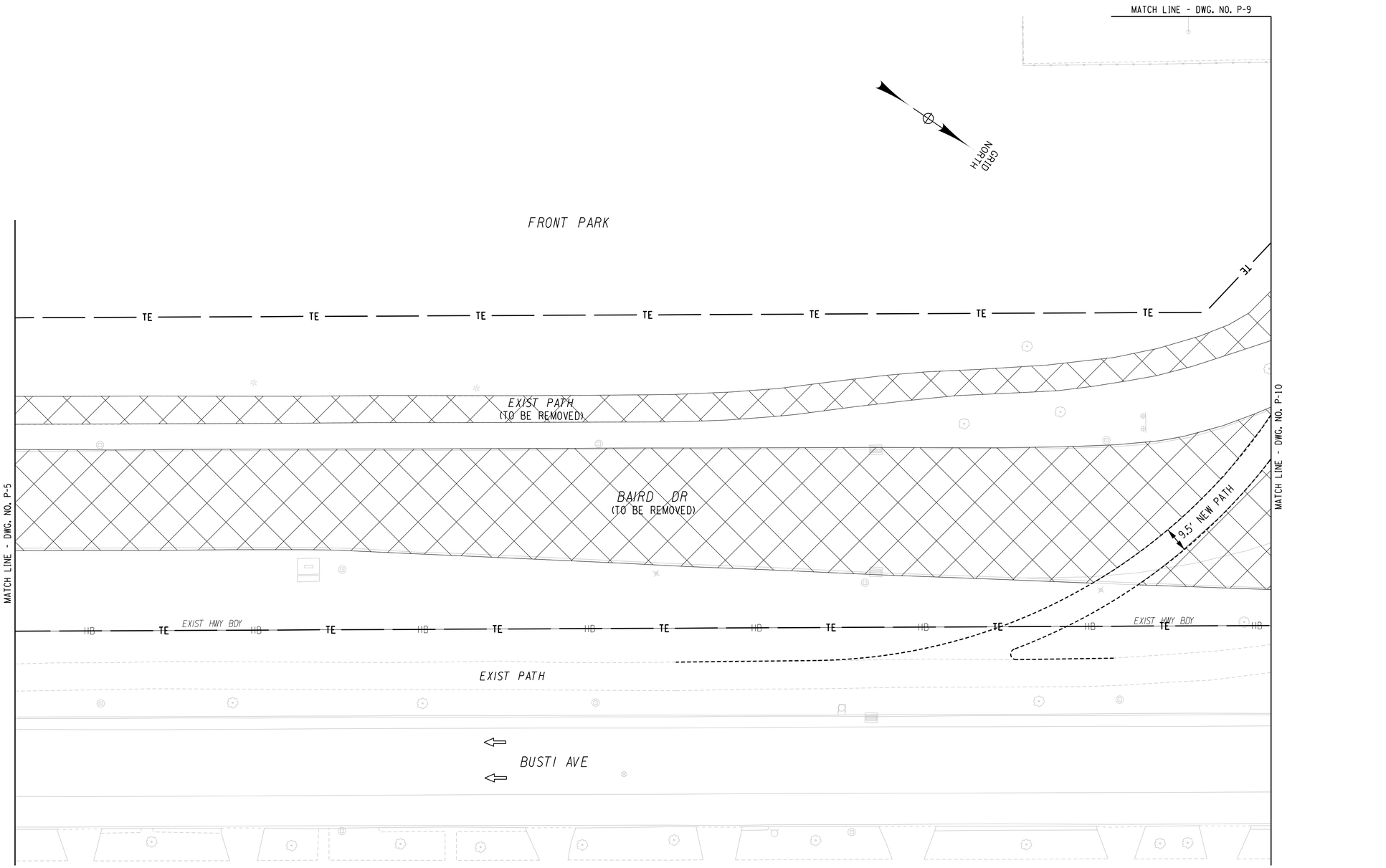
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

DESIGN SUPERVISOR ____ JOB MANAGER ____ DESIGNED BY ____ DRAFTED BY ____ ESTIMATED BY ____ CHECKED BY ____

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
SIGNALIZED INTERSECTION OPTION

CONTRACT NUMBER D031040-01

DRAWING NO. P-6

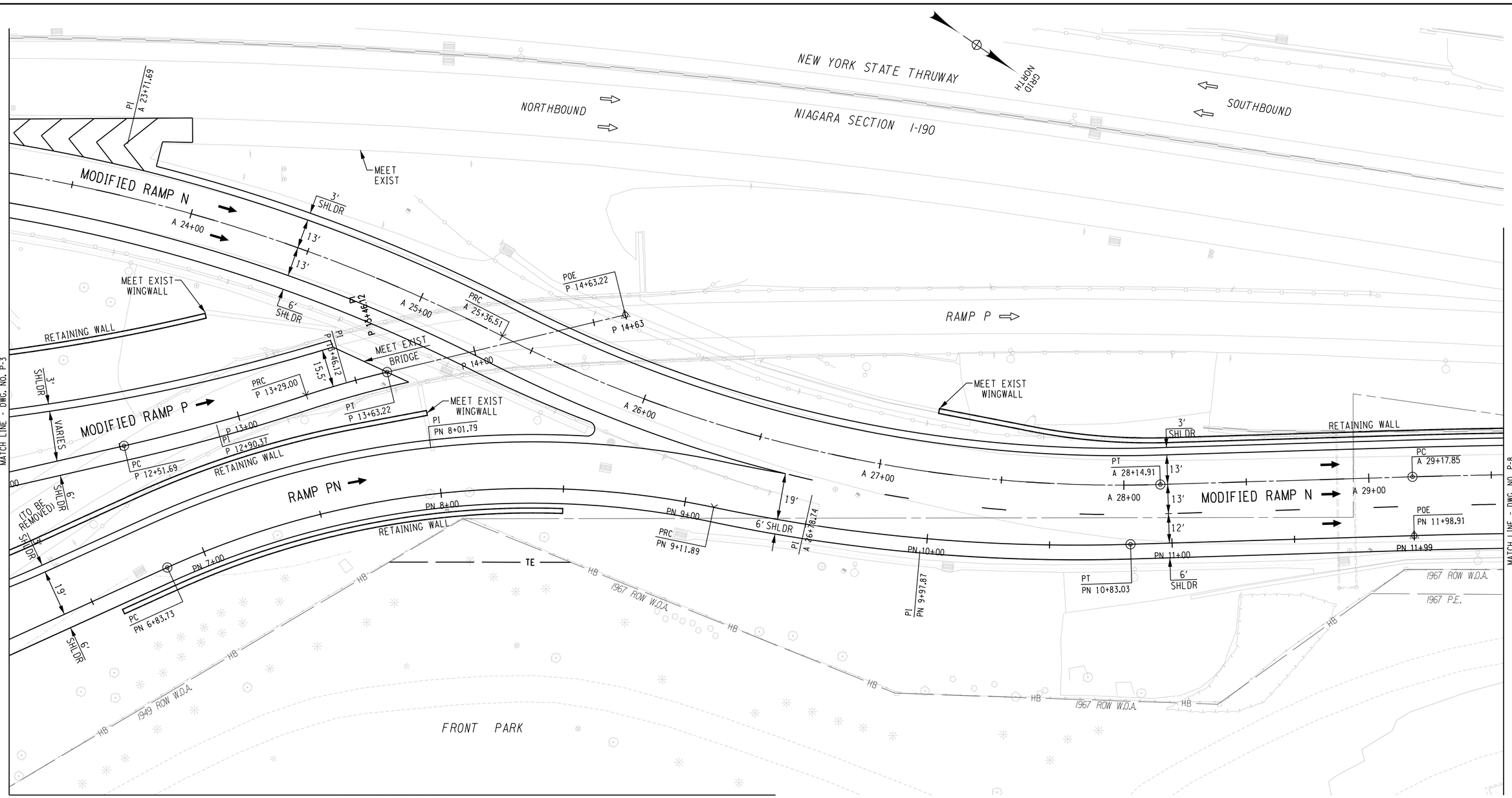
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

DESIGN SUPERVISOR _____ JOB MANAGER _____ DESIGNED BY _____ DRAFTED BY _____ ESTIMATED BY _____ CHECKED BY _____ CHECKED BY _____

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



20 0 20 40 Ft

SCALE IN FEET

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES | CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
SIGNALIZED INTERSECTION OPTION

CONTRACT NUMBER D031040-01

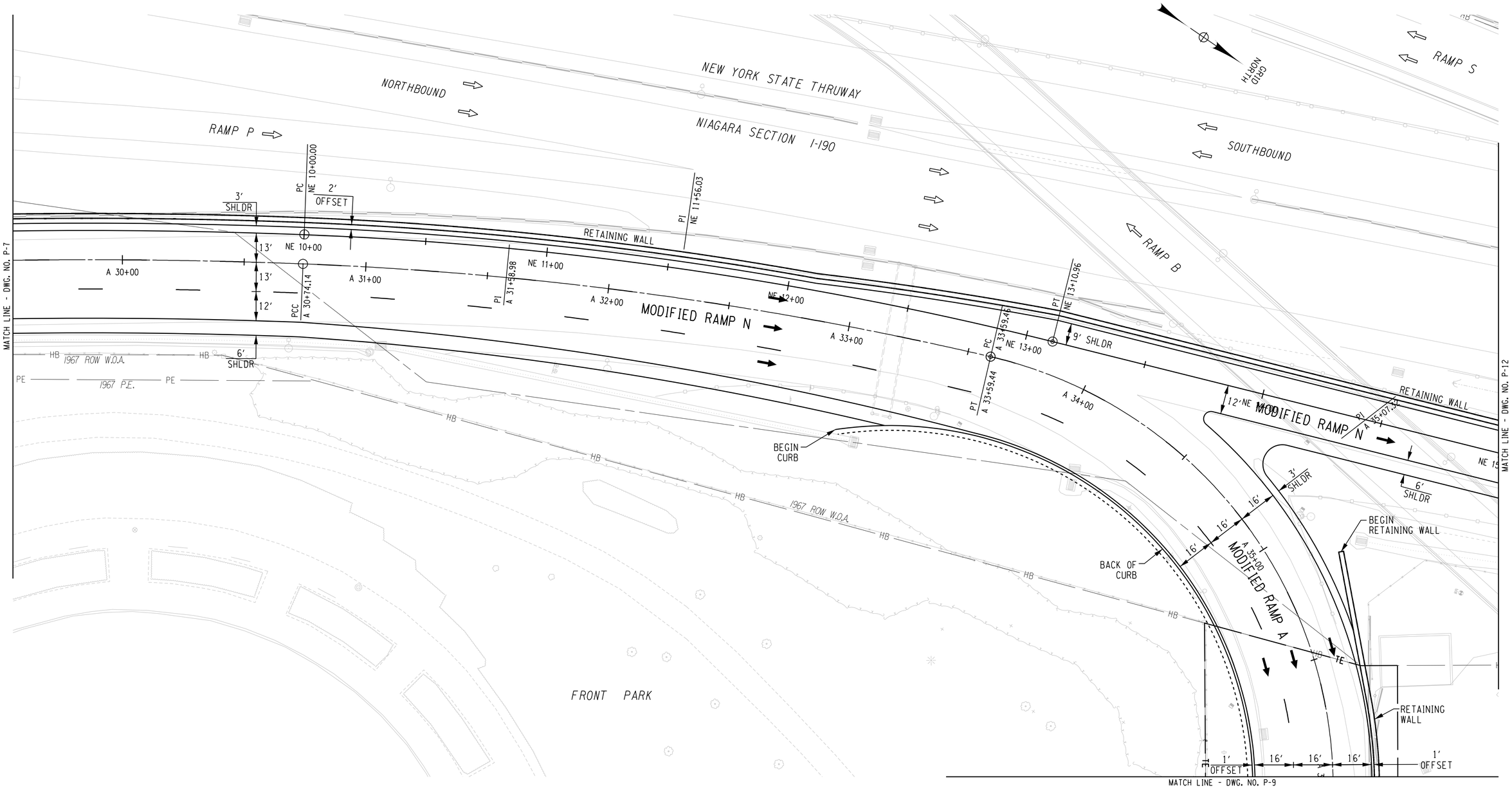
DRAWING NO. P-7

SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

ESTIMATED BY ____ DRAFTED BY ____ CHECKED BY ____
DESIGNED BY ____ JOB MANAGER ____ DESIGN SUPERVISOR ____
FILE NAME - $FILE$
DATE/TIME - $DATE$ $TIME$
USER - $USERNAME$



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
SIGNALIZED INTERSECTION OPTION

CONTRACT NUMBER D031040-01

DRAWING NO. P-8

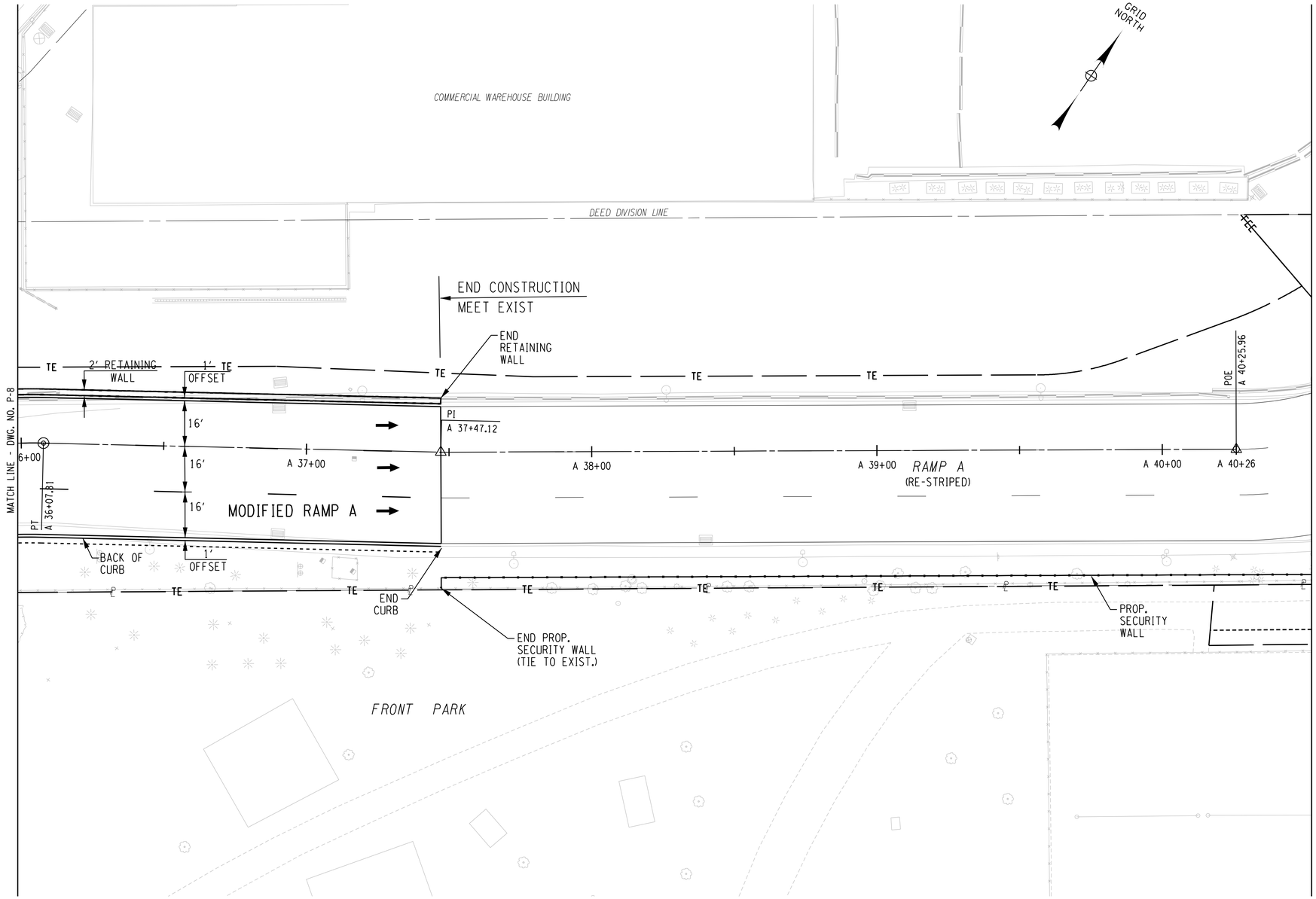
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

CHECKED BY _____
DRAFTED BY _____
ESTIMATED BY _____
CHECKED BY _____
DESIGNED BY _____
JOB MANAGER _____
DESIGN SUPERVISOR _____

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



20 0 20 40 Ft

SCALE IN FEET

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80

PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
SIGNALIZED INTERSECTION OPTION

CONTRACT NUMBER
D031040-01

DRAWING NO. P-9

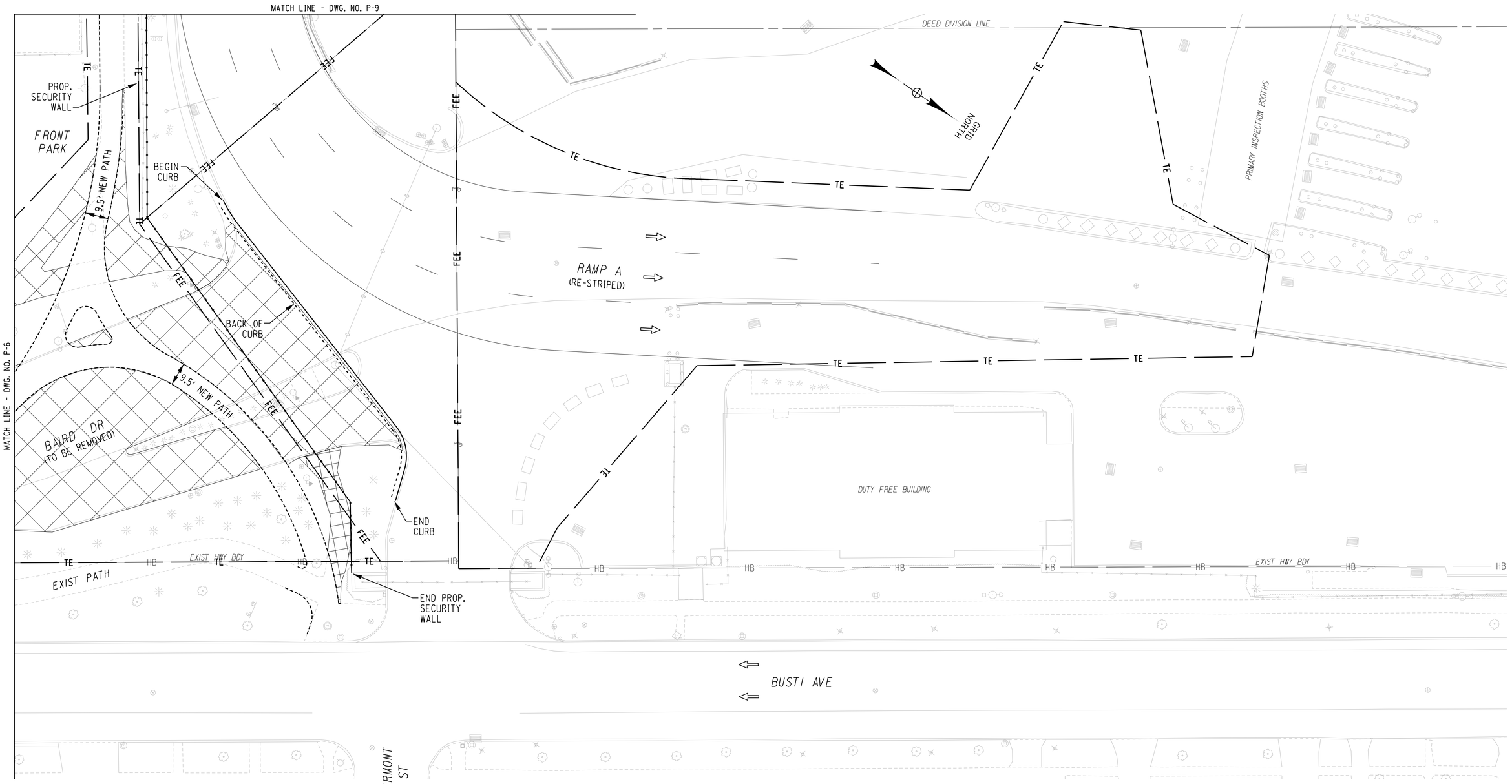
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

DESIGN SUPERVISOR _____ JOB MANAGER _____ DESIGNED BY _____ DRAFTED BY _____ ESTIMATED BY _____ CHECKED BY _____ CHECKED BY _____

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



20 0 20 40 Ft

SCALE IN FEET

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
SIGNALIZED INTERSECTION OPTION

CONTRACT NUMBER D031040-01

DRAWING NO. P-10

SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

DESIGN SUPERVISOR ____ JOB MANAGER ____ DESIGNED BY ____ DRAFTED BY ____ ESTIMATED BY ____ CHECKED BY ____ CHECKED BY ____

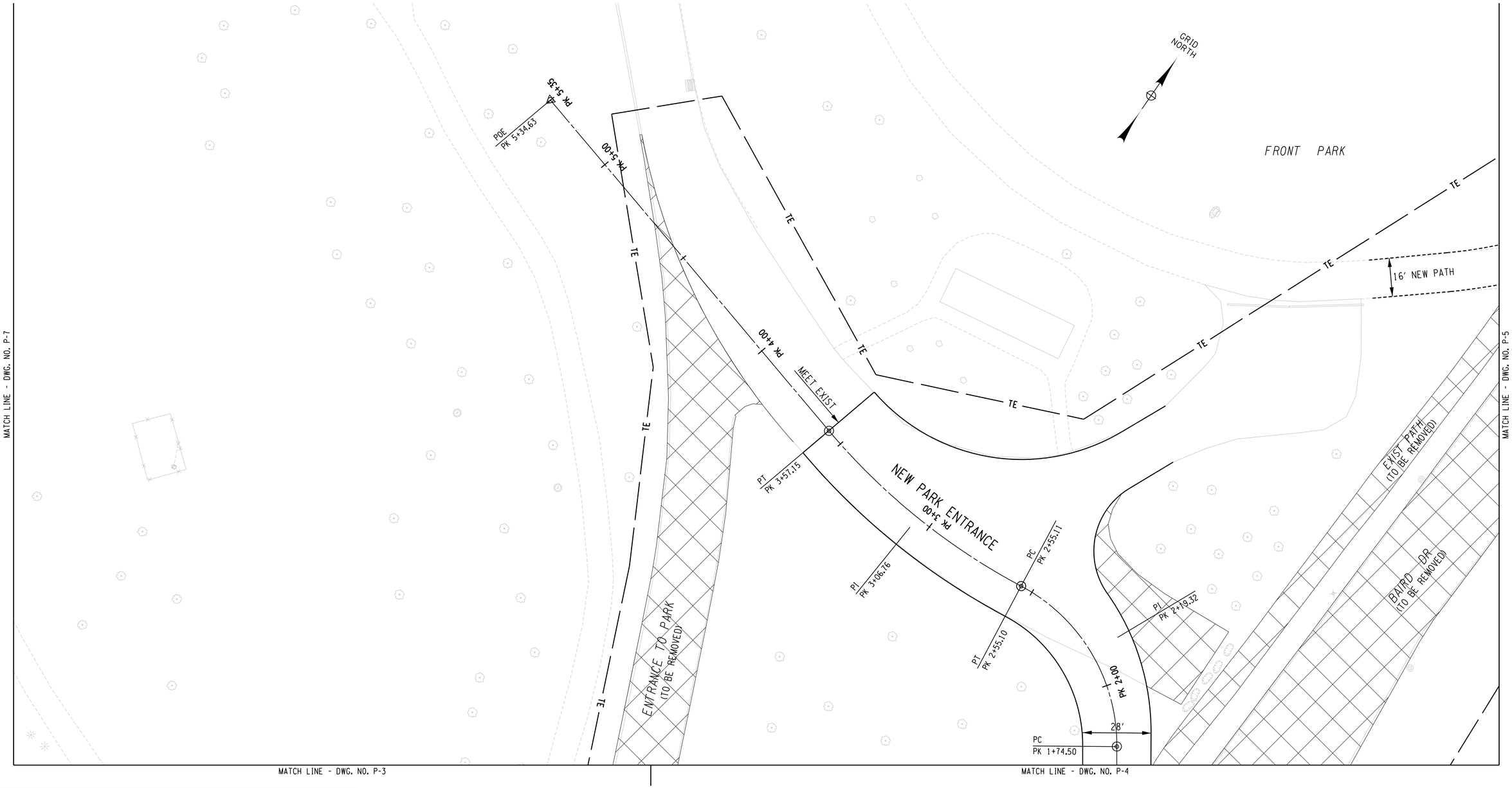
FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$

ESTIMATED BY _____ DRAFTED BY _____ CHECKED BY _____

DESIGN SUPERVISOR _____ JOB MANAGER _____ DESIGNED BY _____ CHECKED BY _____

FILE NAME • $FILE$
DATE/TIME • $DATE$ $TIME$
USER • $USERNAME$

MATCH LINE - DWG. NO. P-7



MATCH LINE - DWG. NO. P-3

MATCH LINE - DWG. NO. P-4

MATCH LINE - DWG. NO. P-5

20 0 20 40 Ft
SCALE IN FEET

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

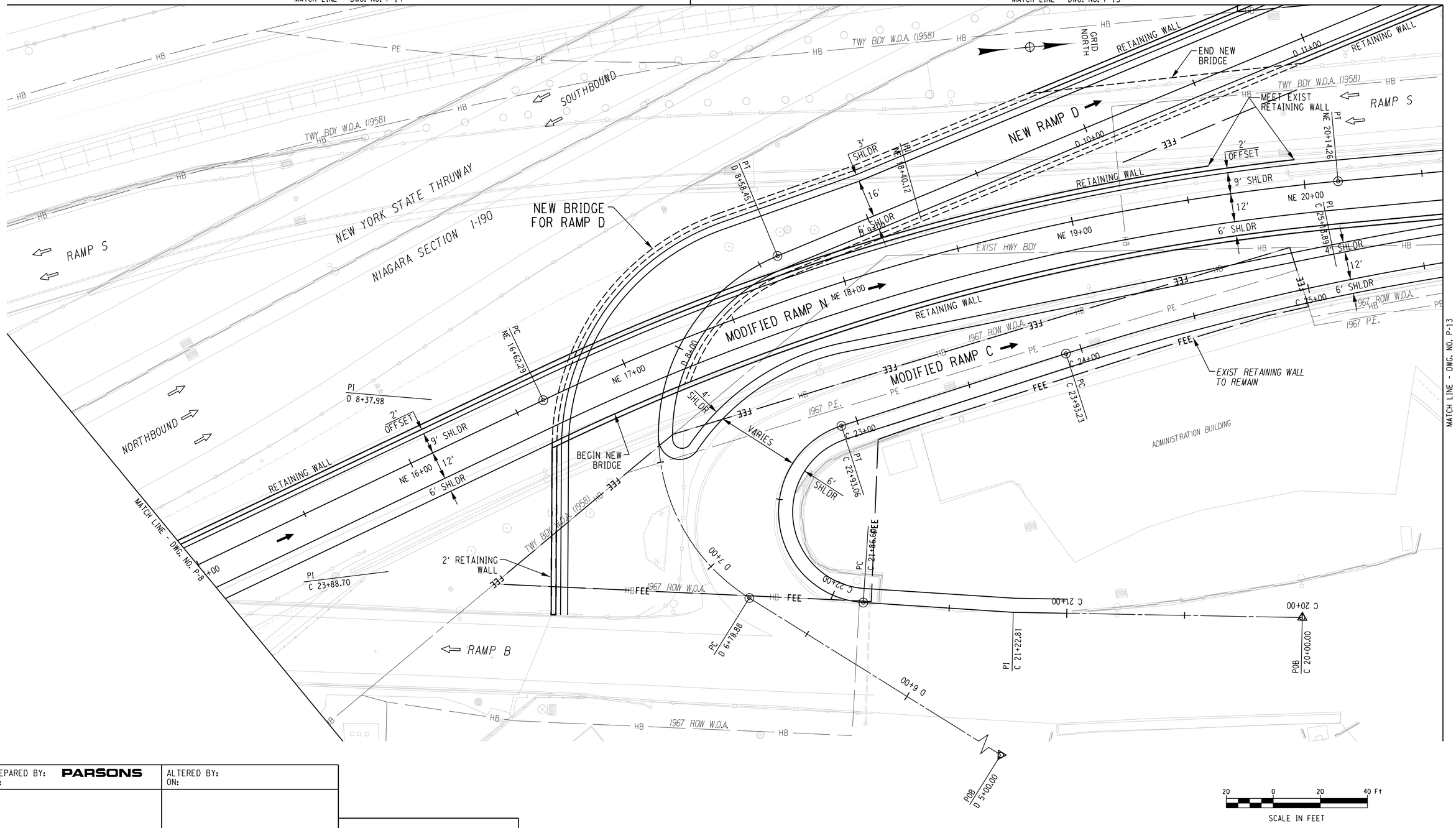
DETAIL PLANS
SIGNALIZED INTERSECTION OPTION

CONTRACT NUMBER
D031040-01

DRAWING NO. P-11
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES | CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
SIGNALIZED INTERSECTION OPTION

CONTRACT NUMBER D031040-01

DRAWING NO. P-12

SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

CHECKED BY _____ DRAFTED BY _____ ESTIMATED BY _____ CHECKED BY _____ DESIGNED BY _____ JOB MANAGER _____ DESIGN SUPERVISOR _____

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$

MATCH LINE - DWG. NO. P-15

MATCH LINE - DWG. NO. P-16

MATCH LINE - DWG. NO. P-12

TWY BDY W.O.A. (1958)

EXIST HWY BDY

RAMP S

PC NE 21+46.24

PI NE 21+85.89

PT NE 22+25.54

9' SHLDR

12'

6' SHLDR

NE 21+00

MODIFIED RAMP N

NE 22+00

NE 23+00

NE 24+00

NE 25+00

RAMP N

GRID NORTH

NE 26+00

POE NE 26+33.76

NE 26+34

RETAINING WALL

MODIFIED RAMP C

4' SHLDR

12'

6' SHLDR

C 26+00

C 27+00

C 28+00

C 29+00

C 30+00

C 31+00

C 31+35

POE C 31+35.09

1967 ROW W.O.A.

PE

PT C 26+33.58

PC C 26+48.99

PI C 26+87.94

PT C 27+26.87

1967 P.E.

EXIST RETAINING WALL TO REMAIN

EXIST HWY BDY

EMPLOYEE PARKING LOT

SECONDARY INSPECTION AND ADMINISTRATION BUILDING

COMMERCIAL PRIMARY INSPECTION BOOTHS

DEED DIVISION LINE

20 0 20 40 Ft

SCALE IN FEET

CHECKED BY

DRAFTED BY

ESTIMATED BY

DESIGNED BY

JOB MANAGER

DESIGN SUPERVISOR

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80

PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
SIGNALIZED INTERSECTION OPTION

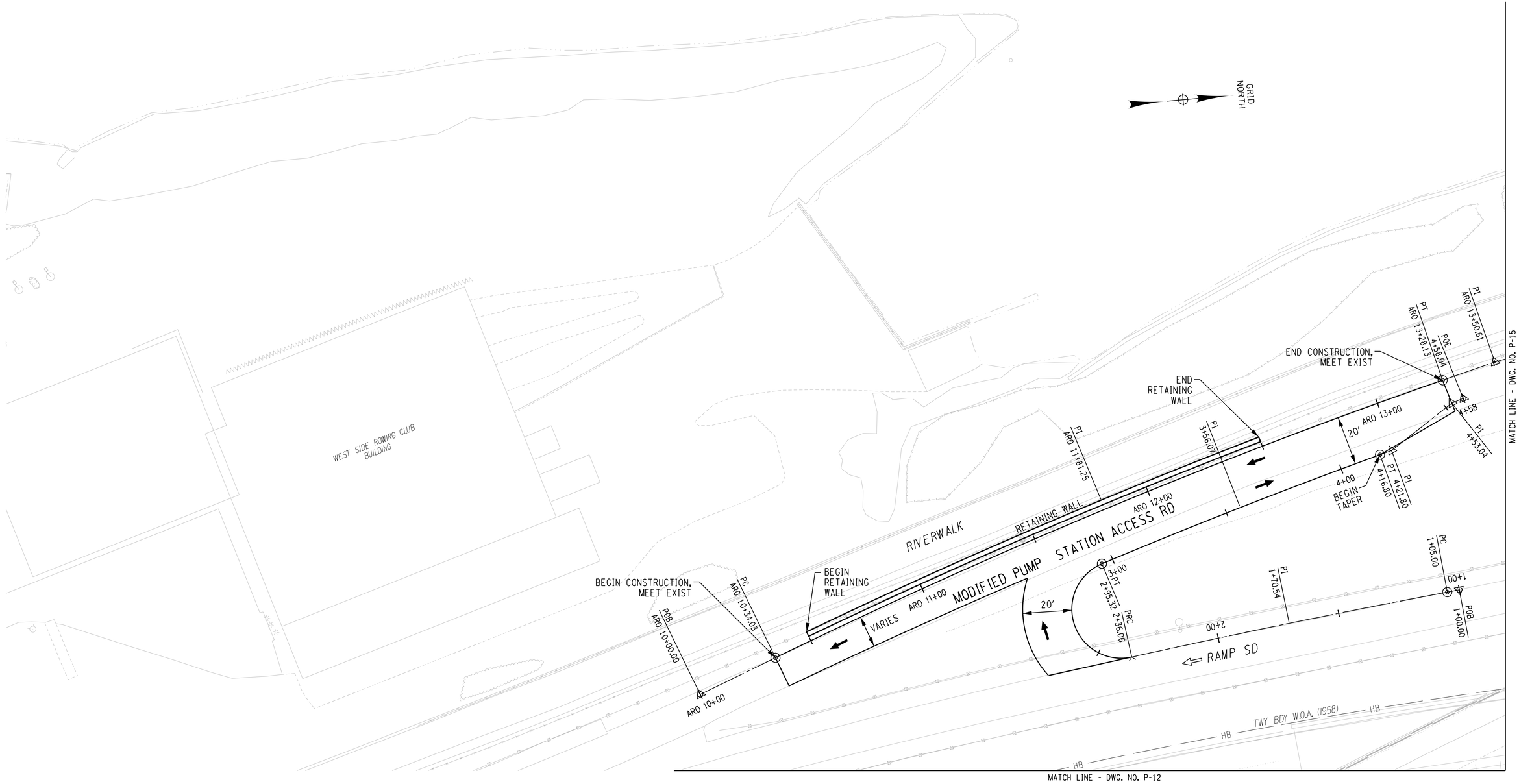
CONTRACT NUMBER D031040-01

DRAWING NO. P-13

SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:



20 0 20 40 Ft

SCALE IN FEET

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80

PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

CONTRACT NUMBER

D031040-01

DETAIL PLANS
SIGNALIZED INTERSECTION OPTION

DRAWING NO. P-14

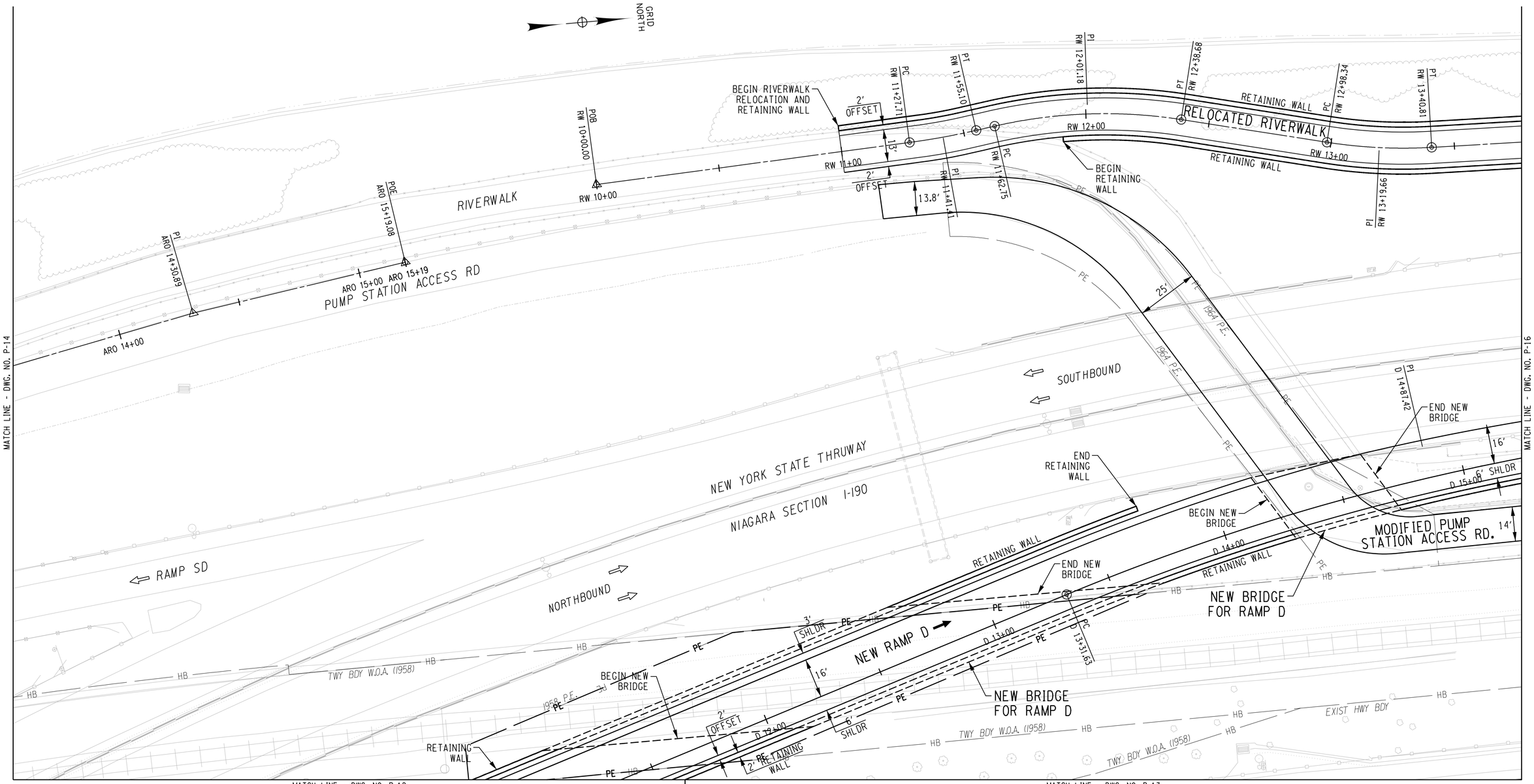
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

ESTIMATED BY ____ DRAFTED BY ____ CHECKED BY ____
DESIGNED BY ____ CHECKED BY ____
JOB MANAGER ____
DESIGN SUPERVISOR ____

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES | CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
SIGNALIZED INTERSECTION OPTION

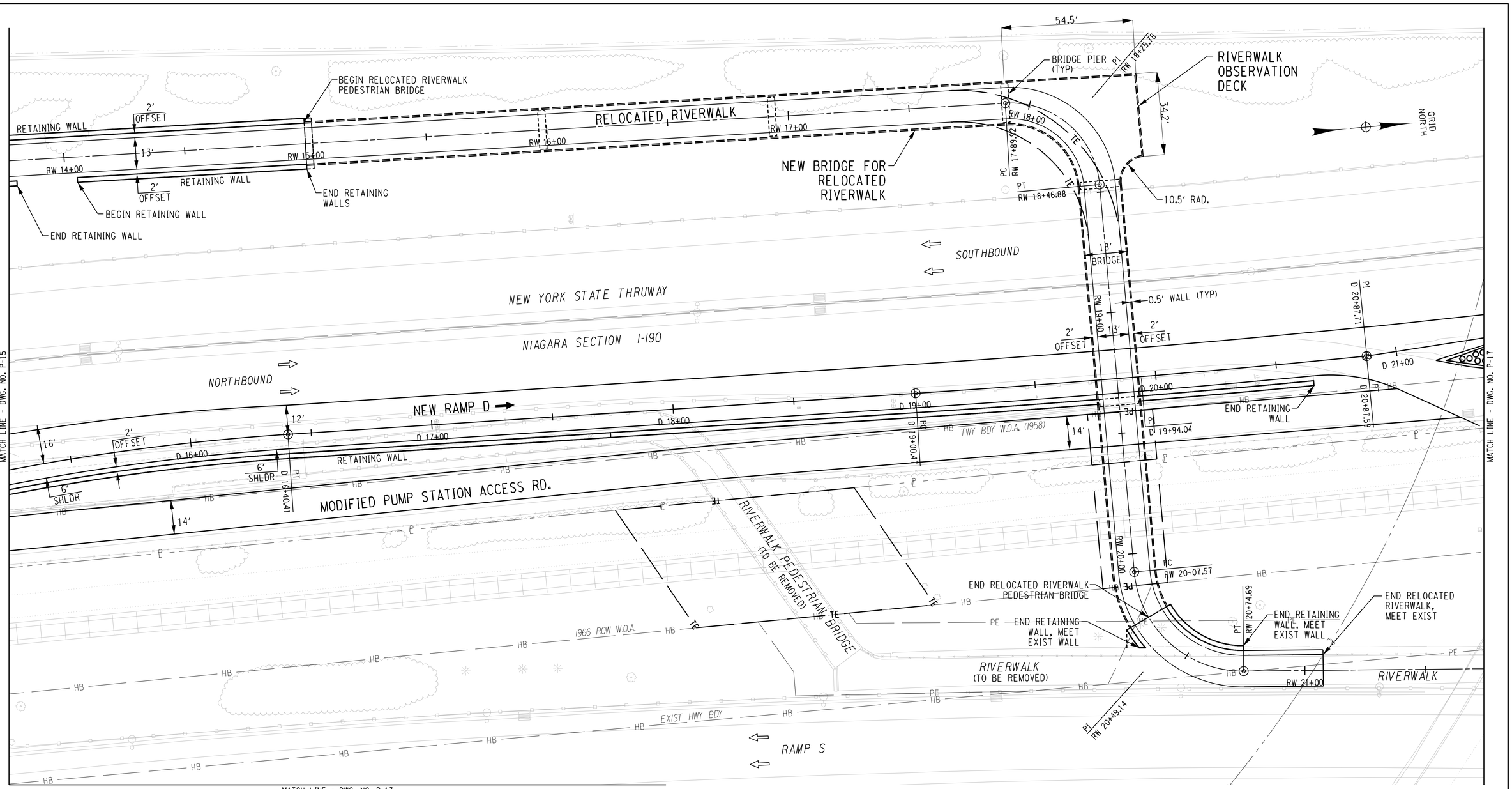
CONTRACT NUMBER D031040-01

DRAWING NO. P-15
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

ESTIMATED BY ____ DRAFTED BY ____ CHECKED BY ____
DESIGNED BY ____ CHECKED BY ____
JOB MANAGER ____
DESIGN SUPERVISOR ____
FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES | CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
SIGNALIZED INTERSECTION OPTION

CONTRACT NUMBER D031040-01

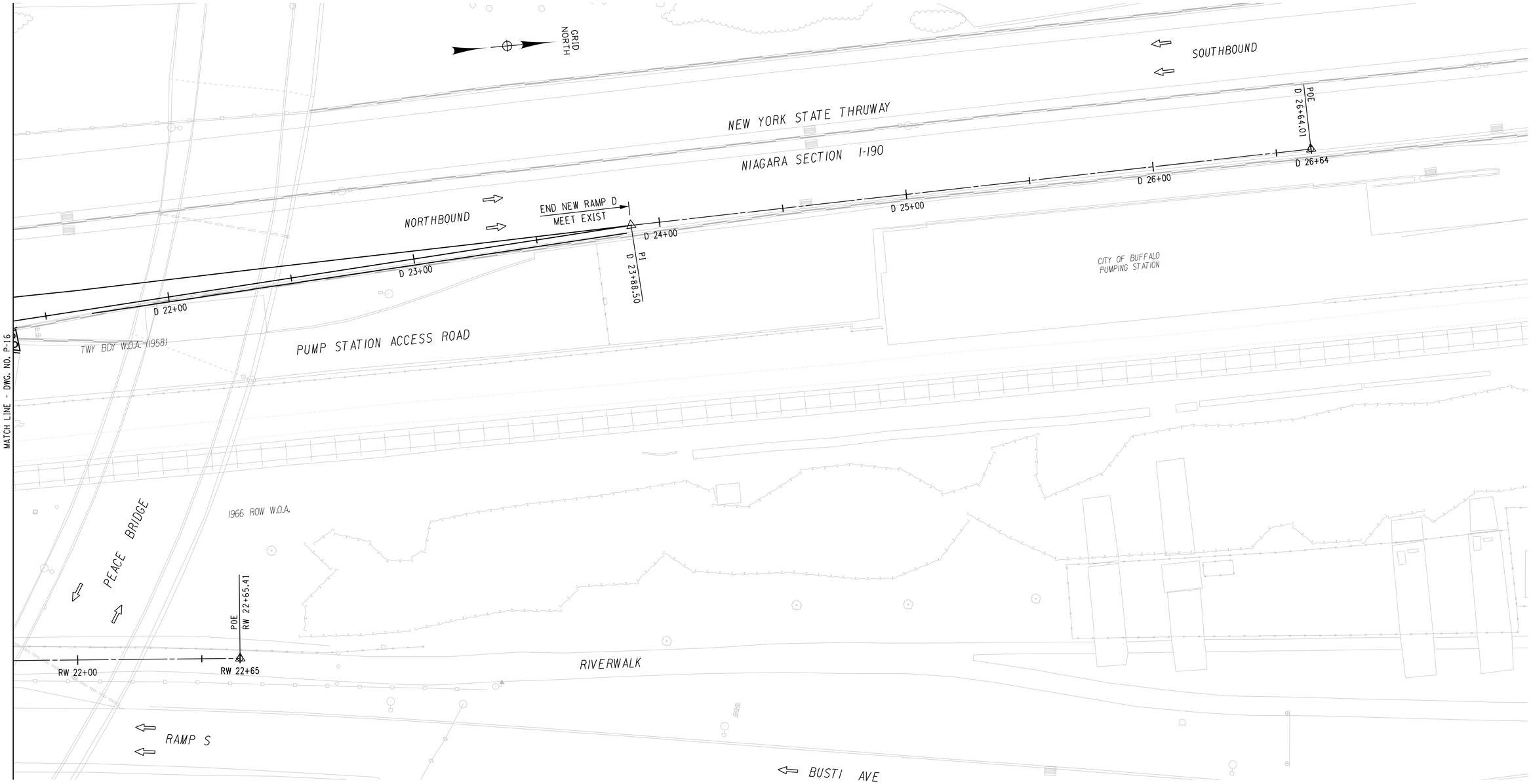
DRAWING NO. P-16
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

CHECKED BY
DRAFTED BY
ESTIMATED BY
DESIGNED BY
JOB MANAGER
DESIGN SUPERVISOR
CHECKED BY

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
SIGNALIZED INTERSECTION OPTION

CONTRACT NUMBER D031040-01

DRAWING NO. P-17

SHEET NO.

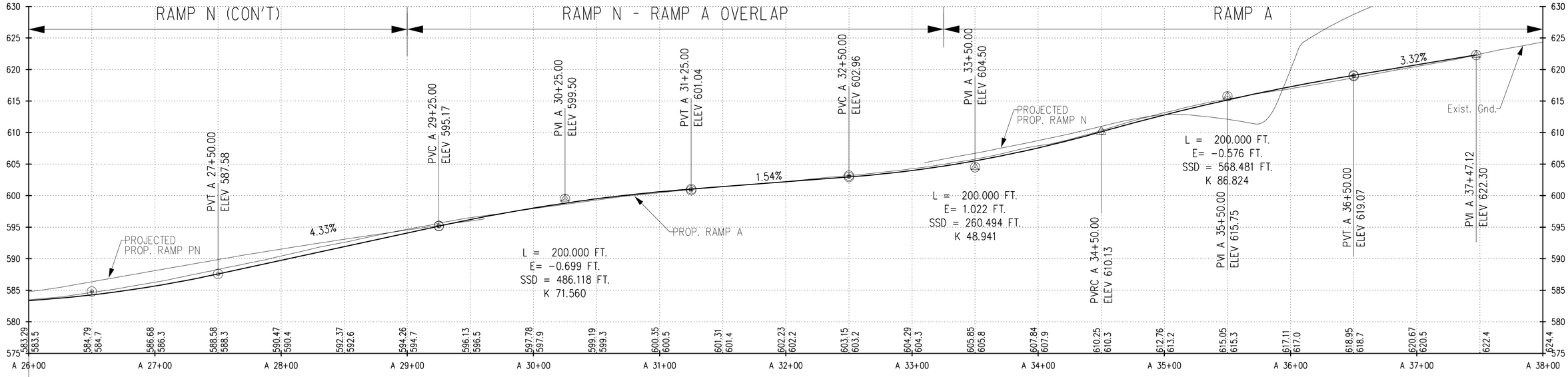
NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

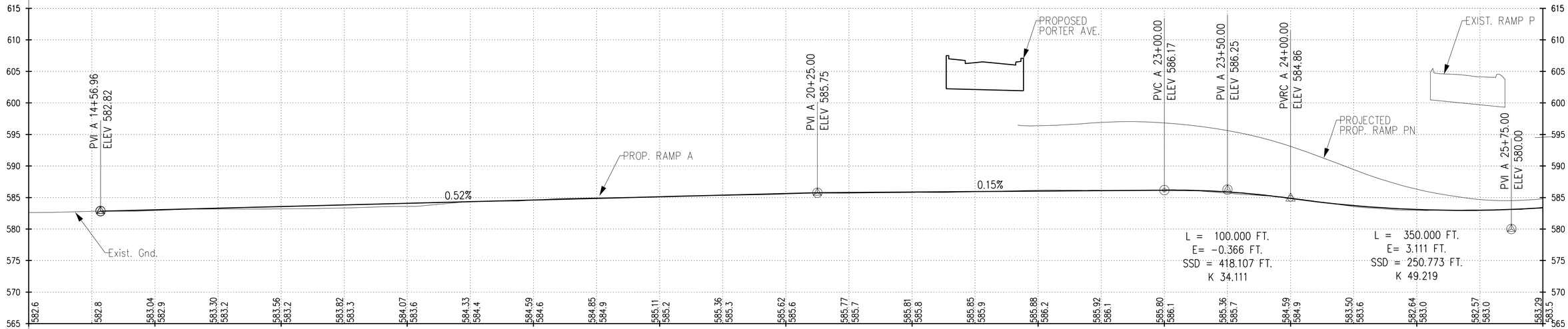
CHECKED BY
DRAFTED BY
ESTIMATED BY
DESIGNED BY
JOB MANAGER
DESIGN SUPERVISOR

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$

SIGNALIZED INTERSECTION & ROUNDABOUT OPTION (con't)



RAMP N - SIGNALIZED INTERSECTION & ROUNDABOUT OPTION



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

4 0 4 8 FT
VERT. SCALE IN FEET

40 0 40 80 FT
HORZ. SCALE IN FEET

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NEW YORK GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
U.S. PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

PROFILE RAMP N & RAMP A
SIGNALIZED INTERSECTION OPTION
AND ROUNDABOUT OPTION

CONTRACT NUMBER D031040-01

DRAWING NO. PF-1

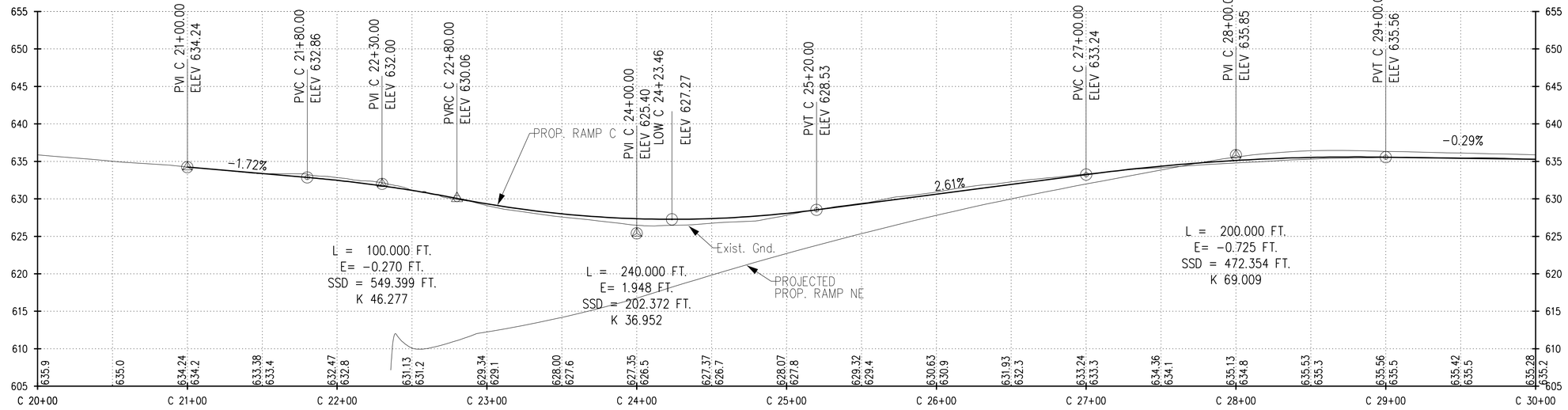
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

$FILE$
$DATE$ $TIME$
$USERNAME$

RAMP C - SIGNALIZED INTERSECTION & ROUNDABOUT OPTIONS



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

4 0 4 8 FT
VERT. SCALE IN FEET

40 0 40 80 FT
HORZ. SCALE IN FEET

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NEW YORK GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
U.S. PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

PROFILE RAMP C
SIGNALIZED INTERSECTION OPTION
AND ROUNDABOUT OPTION

CONTRACT NUMBER
D031040-01

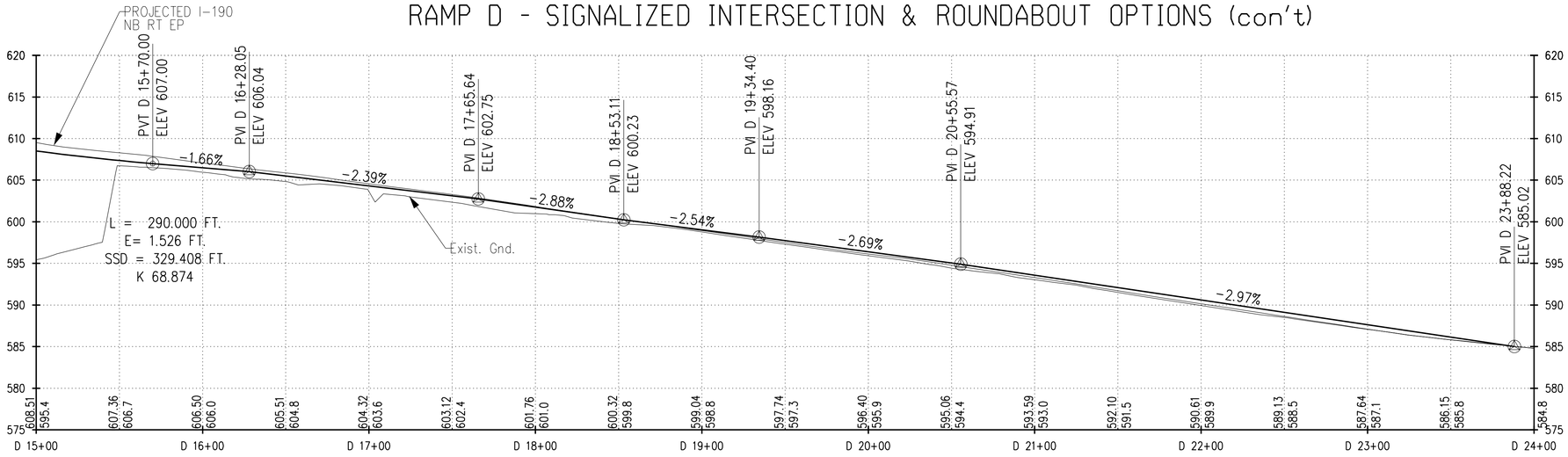
DRAWING NO. PF-2
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

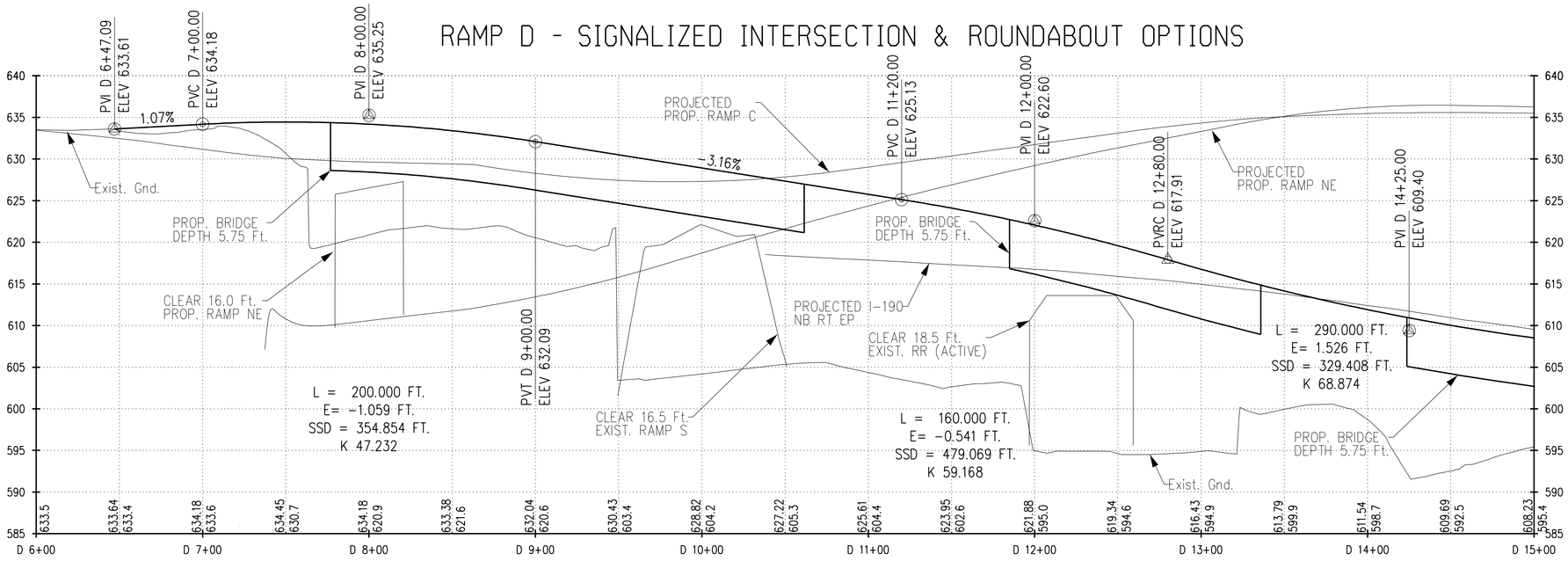
DOCUMENT NAME:

$FILE$
$DATE$ $TIME$
$USERNAME$

RAMP D - SIGNALIZED INTERSECTION & ROUNDABOUT OPTIONS (con't)



RAMP D - SIGNALIZED INTERSECTION & ROUNDABOUT OPTIONS



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

4 0 4 8 FT
VERT. SCALE IN FEET

40 0 40 80 FT
HORZ. SCALE IN FEET

$FILE$
$DATE$ $TIME$
$USERNAME$

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NEW YORK GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
U.S. PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

PROFILE RAMP D
SIGNALIZED INTERSECTION OPTION
AND ROUNDABOUT OPTION

CONTRACT NUMBER D031040-01

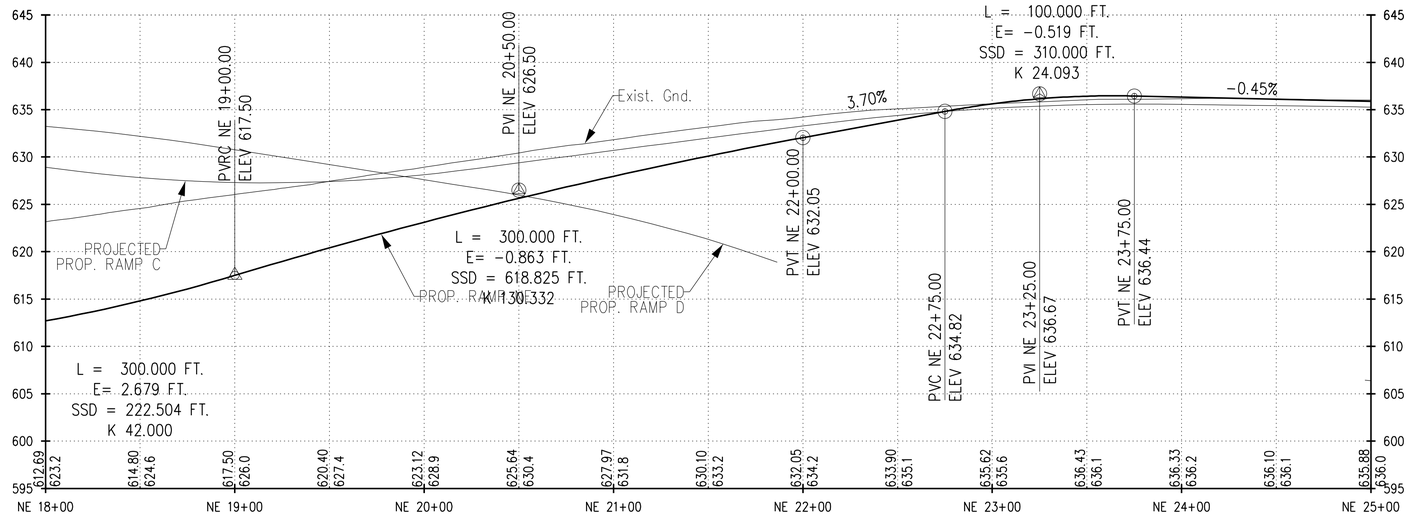
DRAWING NO. PF-3

SHEET NO.

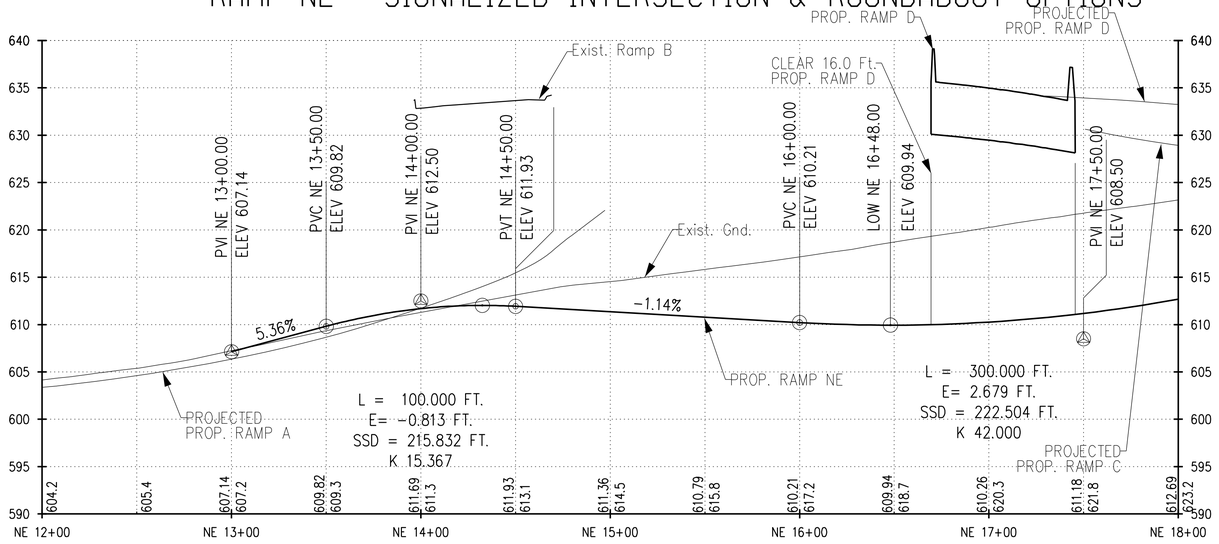
NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

RAMP NE - SIGNALIZED INTERSECTION & ROUNDABOUT OPTIONS



RAMP NE - SIGNALIZED INTERSECTION & ROUNDABOUT OPTIONS



4 0 4 8 FT
VERT. SCALE IN FEET

40 0 40 80 FT
HORZ. SCALE IN FEET

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NEW YORK GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
U.S. PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

PROFILE RAMP N
SIGNALIZED INTERSECTION OPTION
AND ROUNDABOUT OPTION

CONTRACT NUMBER D031040-01

DRAWING NO. PF-4

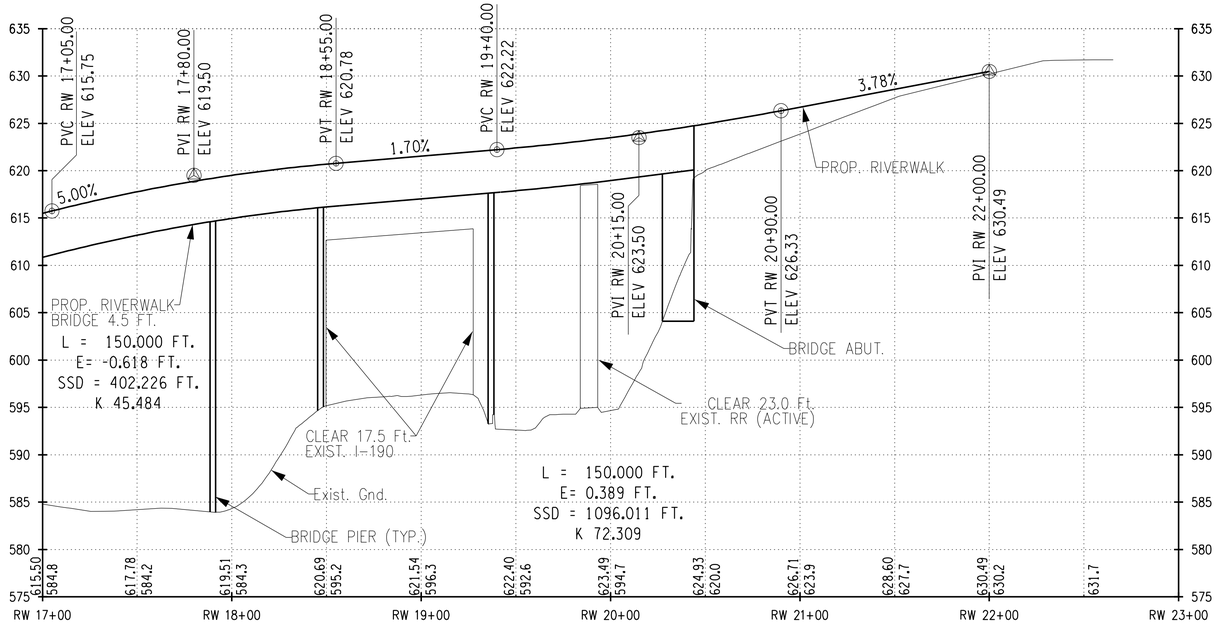
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

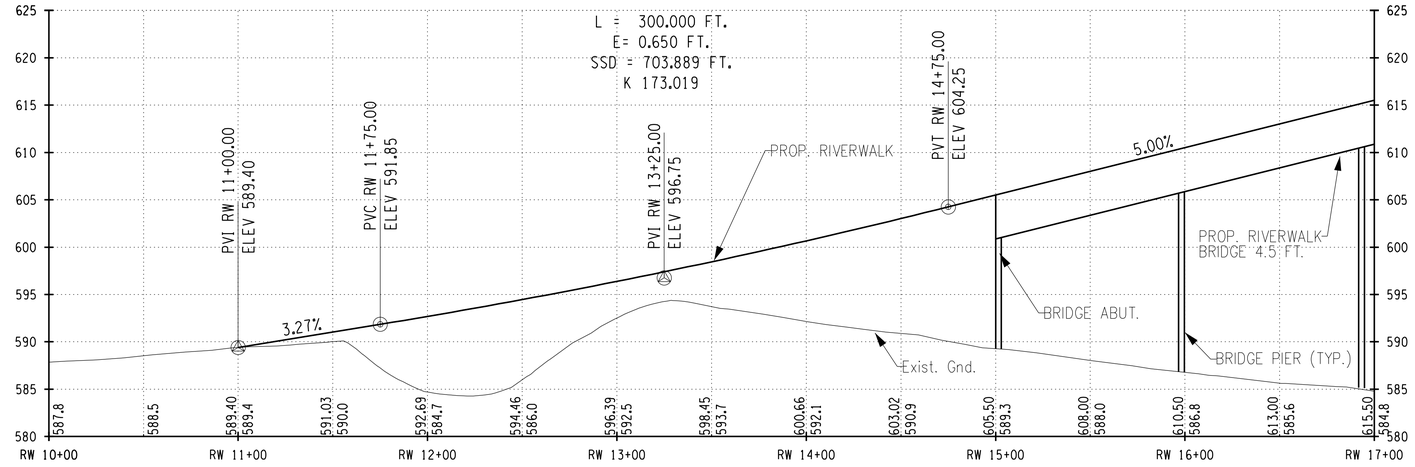
DOCUMENT NAME:

$FILE$
$DATE$ $TIME$
$USERNAME$

PROPOSED SHORELINE TRAIL (RIVERWALK) - SIGNALIZED INTERSECTION & ROUNDABOUT OPTION



PROPOSED SHORELINE TRAIL (RIVERWALK) - SIGNALIZED INTERSECTION & ROUNDABOUT OPTION



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

4 0 4 8 FT
VERT. SCALE IN FEET

40 0 40 80 FT
HORZ. SCALE IN FEET

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NEW YORK GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
U.S. PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

PROFILE SHORELINE TRAIL(RIVERWALK)
SIGNALIZED INTERSECTION OPTION
AND ROUNDABOUT OPTION

CONTRACT NUMBER
D031040-01

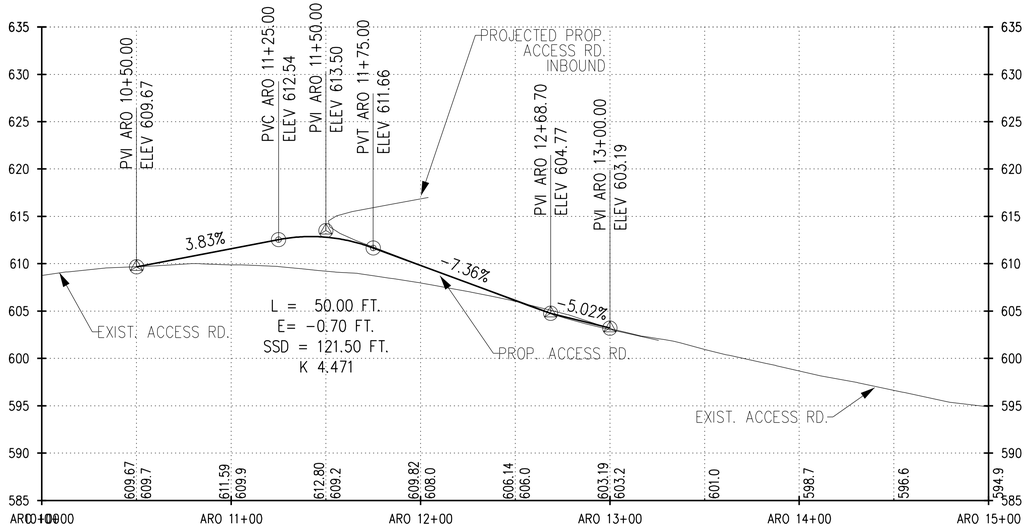
DRAWING NO. PF-5
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

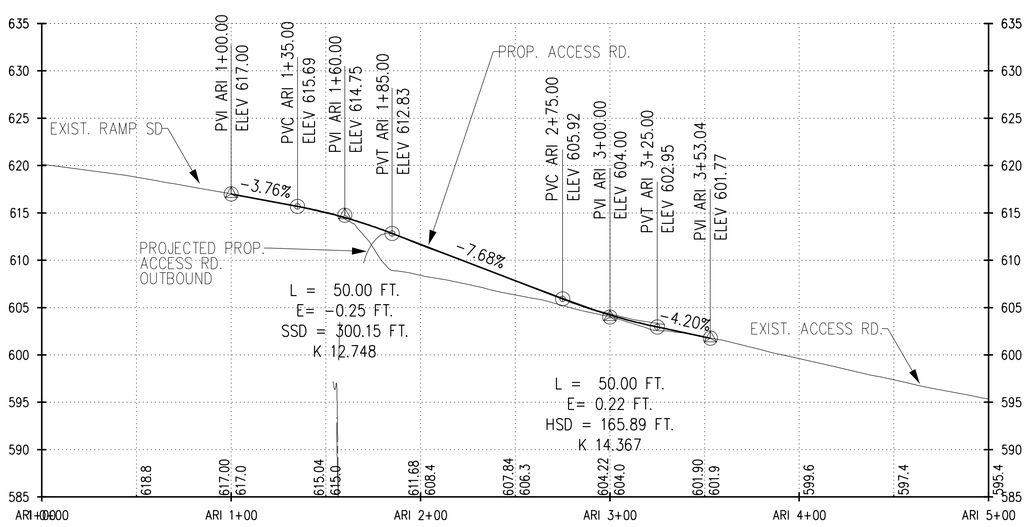
DOCUMENT NAME:

$FILE$
$DATE$ $TIME$
$USERNAME$

ACCESS ROAD OUTBOUND - SIGNALIZED INTERSECTION & ROUNDABOUT OPTION



ACCESS ROAD INBOUND - SIGNALIZED INTERSECTION & ROUNDABOUT OPTION



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

4 0 4 8 FT
VERT. SCALE IN FEET

40 0 40 80 FT
HORZ. SCALE IN FEET

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NEW YORK GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
U.S. PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

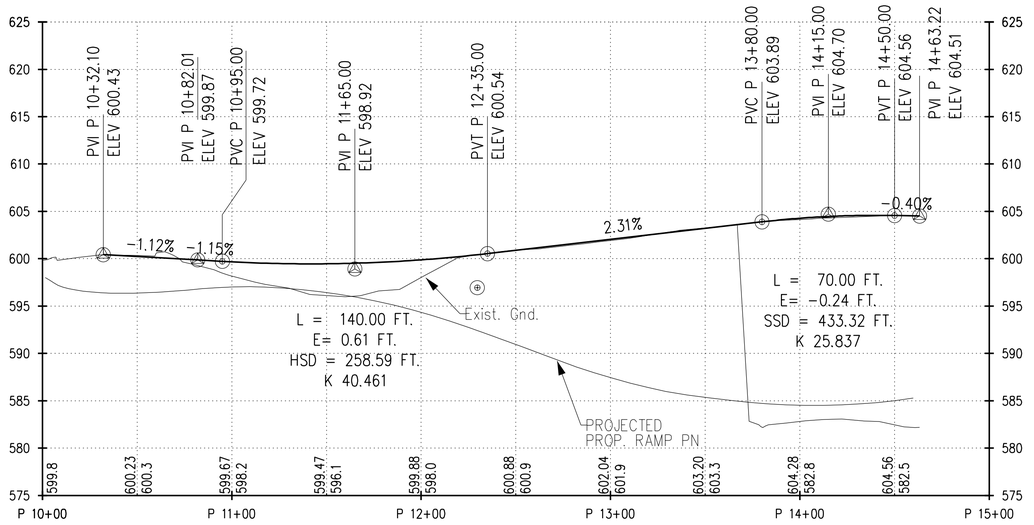
PROFILE ACCESS ROAD
SIGNALIZED INTERSECTION OPTION
AND ROUNDABOUT OPTION

CONTRACT NUMBER
D031040-01
DRAWING NO. PF-6
SHEET NO.

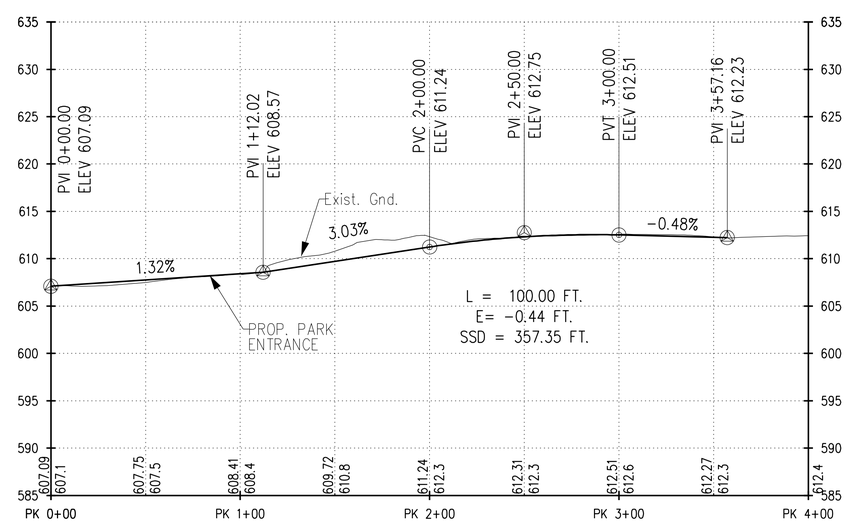
NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION
DOCUMENT NAME:

$FILE$
$DATE$ $TIME$
$USERNAME$

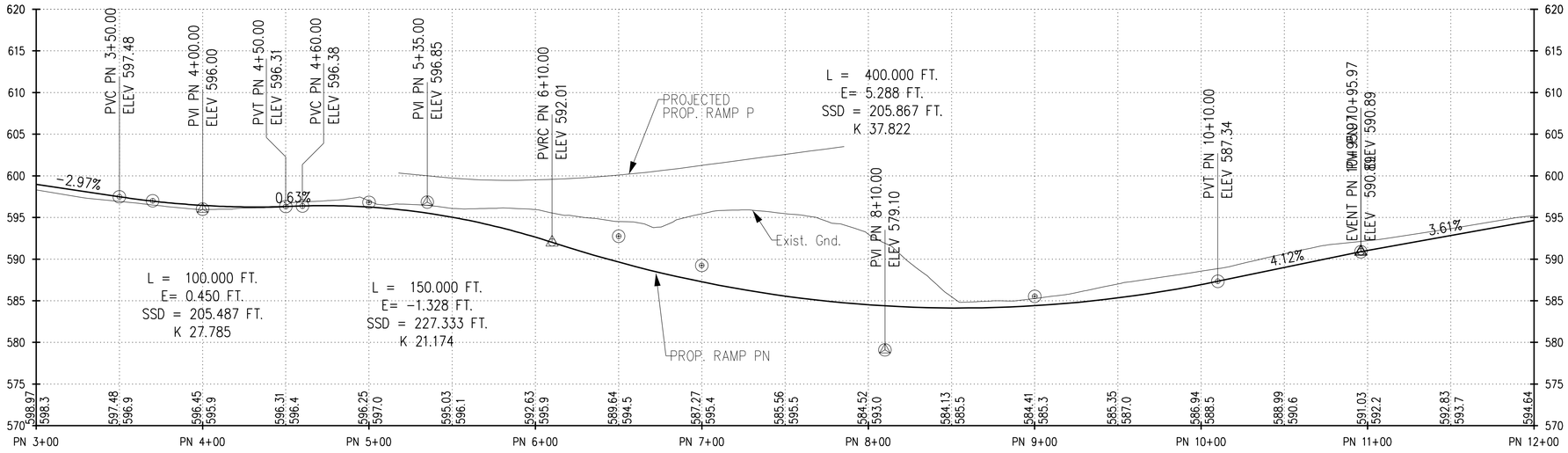
RAMP P - SIGNALIZED INTERSECTION OPTION



PROPOSED PARK ENTRANCE - SIGNALIZED INTERSECTION OPTION



RAMP PN - SIGNALIZED INTERSECTION OPTION



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

4 0 4 8 FT
VERT. SCALE IN FEET

40 0 40 80 FT
HORZ. SCALE IN FEET

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NEW YORK GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
U.S. PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

PROFILE RAMP P, PN. & PARK ROAD
SIGNALIZED INTERSECTION OPTION

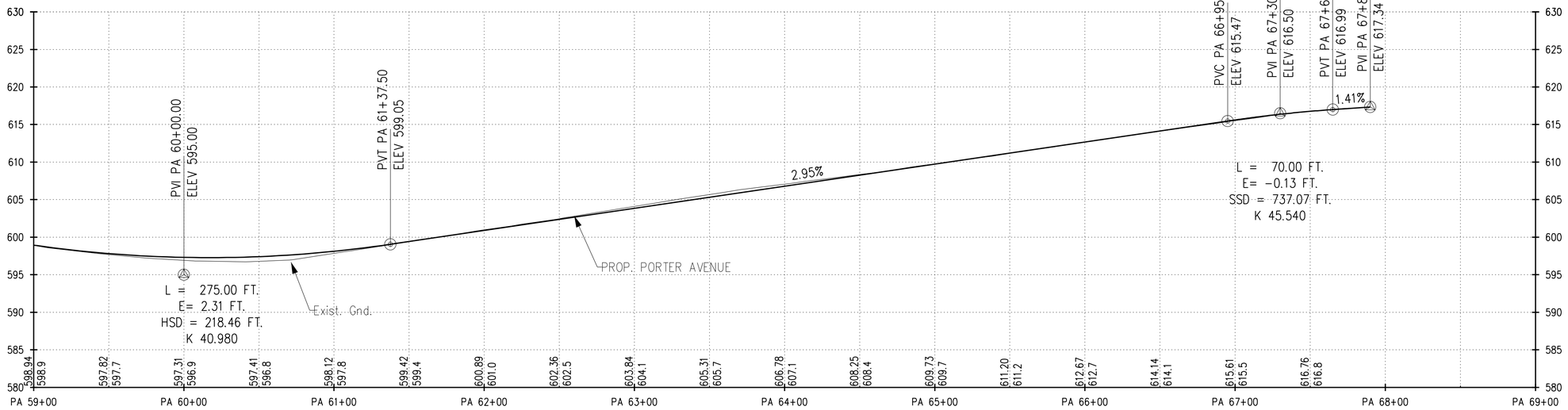
CONTRACT NUMBER
D031040-01
DRAWING NO. PF-7
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

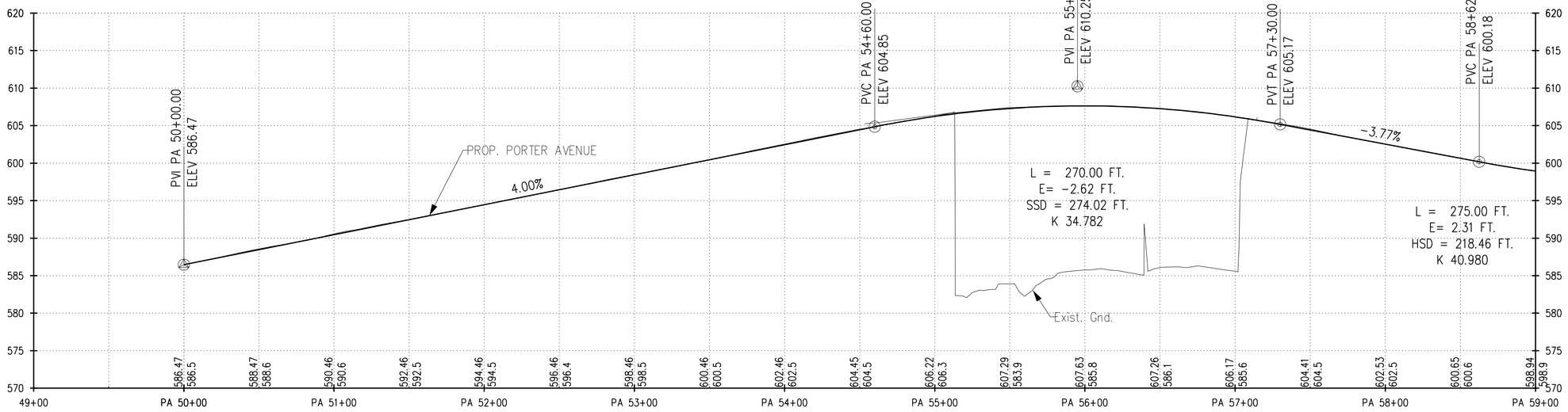
DOCUMENT NAME:

$FILE$
$DATE$ $TIME$
$USERNAME$

PORTER AVENUE - SIGNALIZED INTERSECTION OPTION (con't)



PORTER AVENUE - SIGNALIZED INTERSECTION OPTION



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

4 0 4 8 FT
VERT. SCALE IN FEET

40 0 40 80 FT
HORZ. SCALE IN FEET

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NEW YORK GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
U.S. PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

PROFILE PORTER AVENUE
SIGNALIZED INTERSECTION OPTION

CONTRACT NUMBER
D031040-01
DRAWING NO. PF-8
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

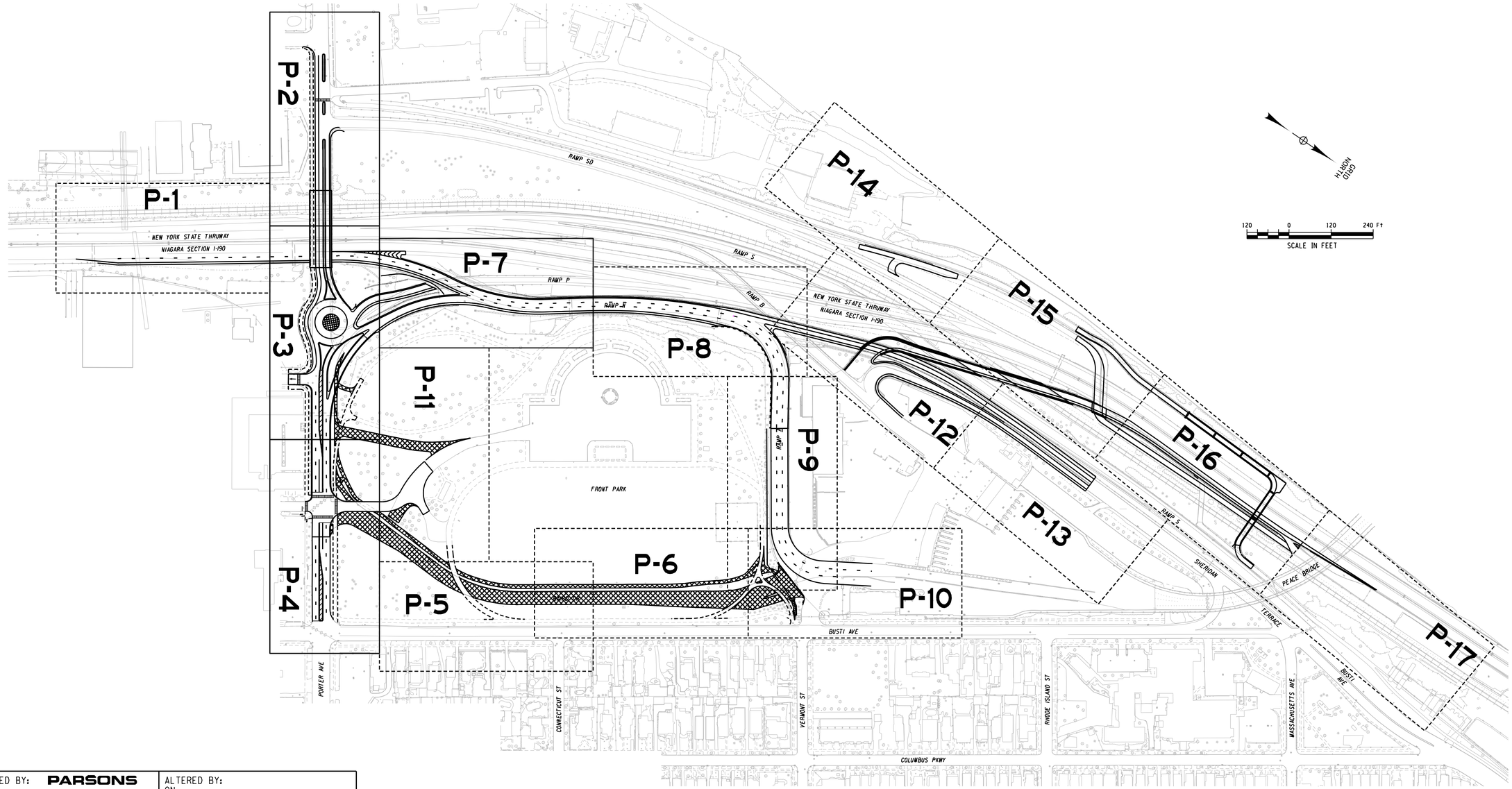
DOCUMENT NAME:

$FILE$
$DATE$ $TIME$
$USERNAME$

3. Build Alternative – With Option B – Roundabout at Porter Avenue

   a. Preliminary Plans

   b. Profiles



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

SHEETS SAME AS SIGNALIZED INTERSECTION OPTION

DETAIL PLANS - SHEET LAYOUT ROUNDABOUT OPTION

TITLE

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80

PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

CONTRACT NUMBER D031040-01

DRAWING NO.

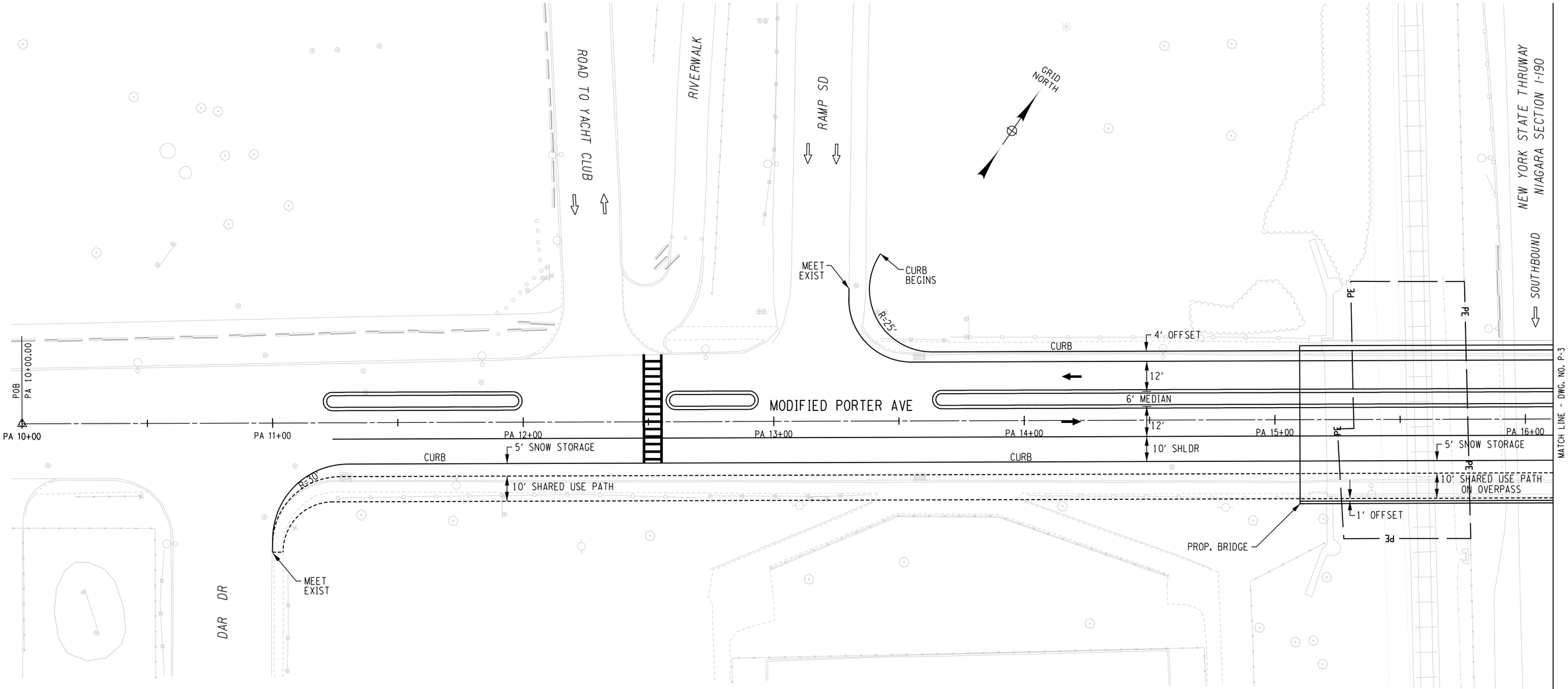
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

DESIGN SUPERVISOR ____ JOB MANAGER ____ DESIGNED BY ____ DRAFTED BY ____ ESTIMATED BY ____ CHECKED BY ____ CHECKED BY ____

FILE NAME • $FILE$
DATE/TIME • $DATE$ $TIME$
USER • $USERNAME$



20 0 20 40 Ft

SCALE IN FEET

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80

PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
ROUNDABOUT OPTION

CONTRACT NUMBER D031040-01

DRAWING NO. P-2

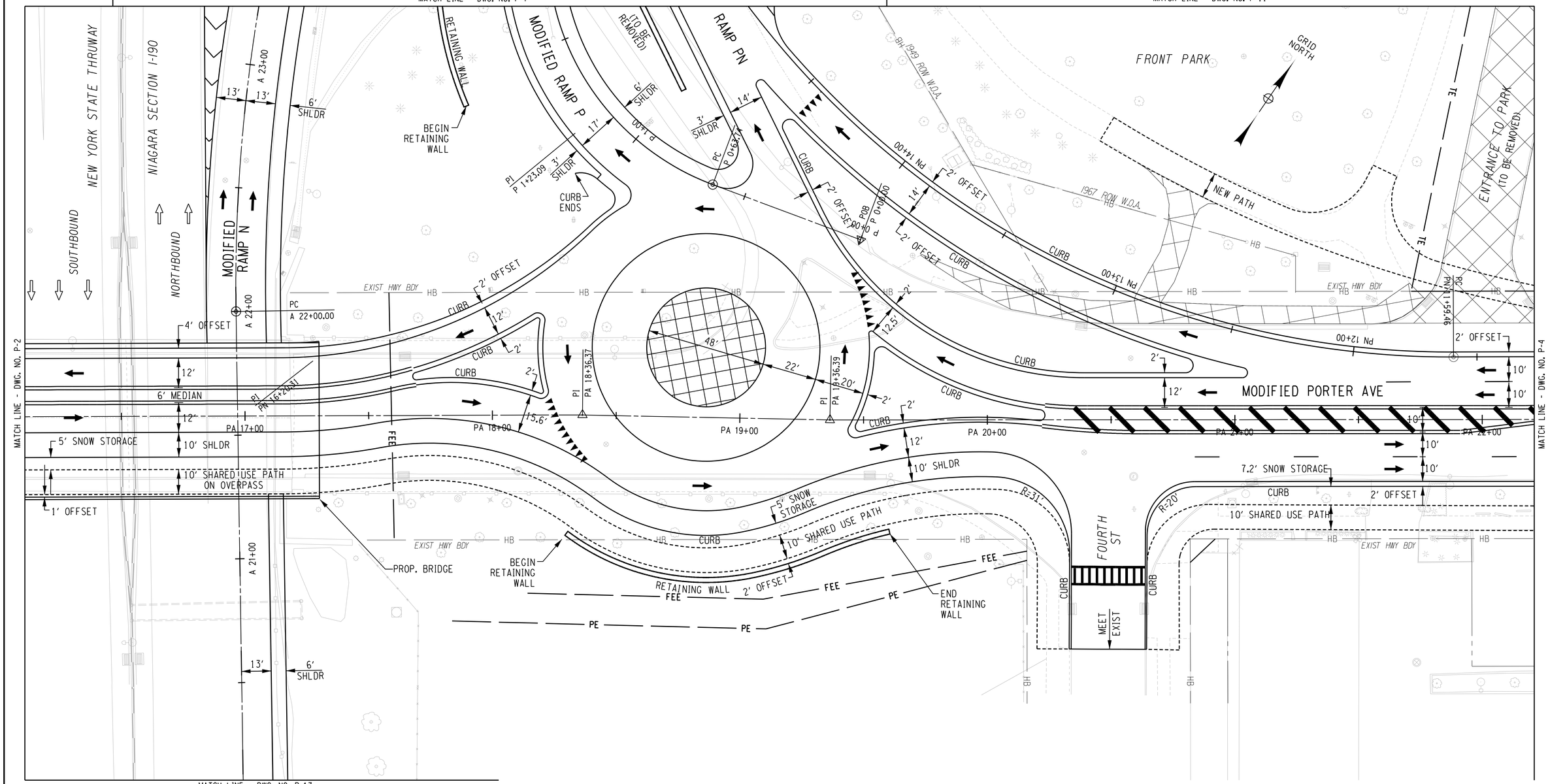
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

DESIGN SUPERVISOR ____ JOB MANAGER ____ DESIGNED BY ____ DRAFTED BY ____ ESTIMATED BY ____ CHECKED BY ____ CHECKED BY ____

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES | CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
ROUNDABOUT OPTION

CONTRACT NUMBER D031040-01

DRAWING NO. P-3

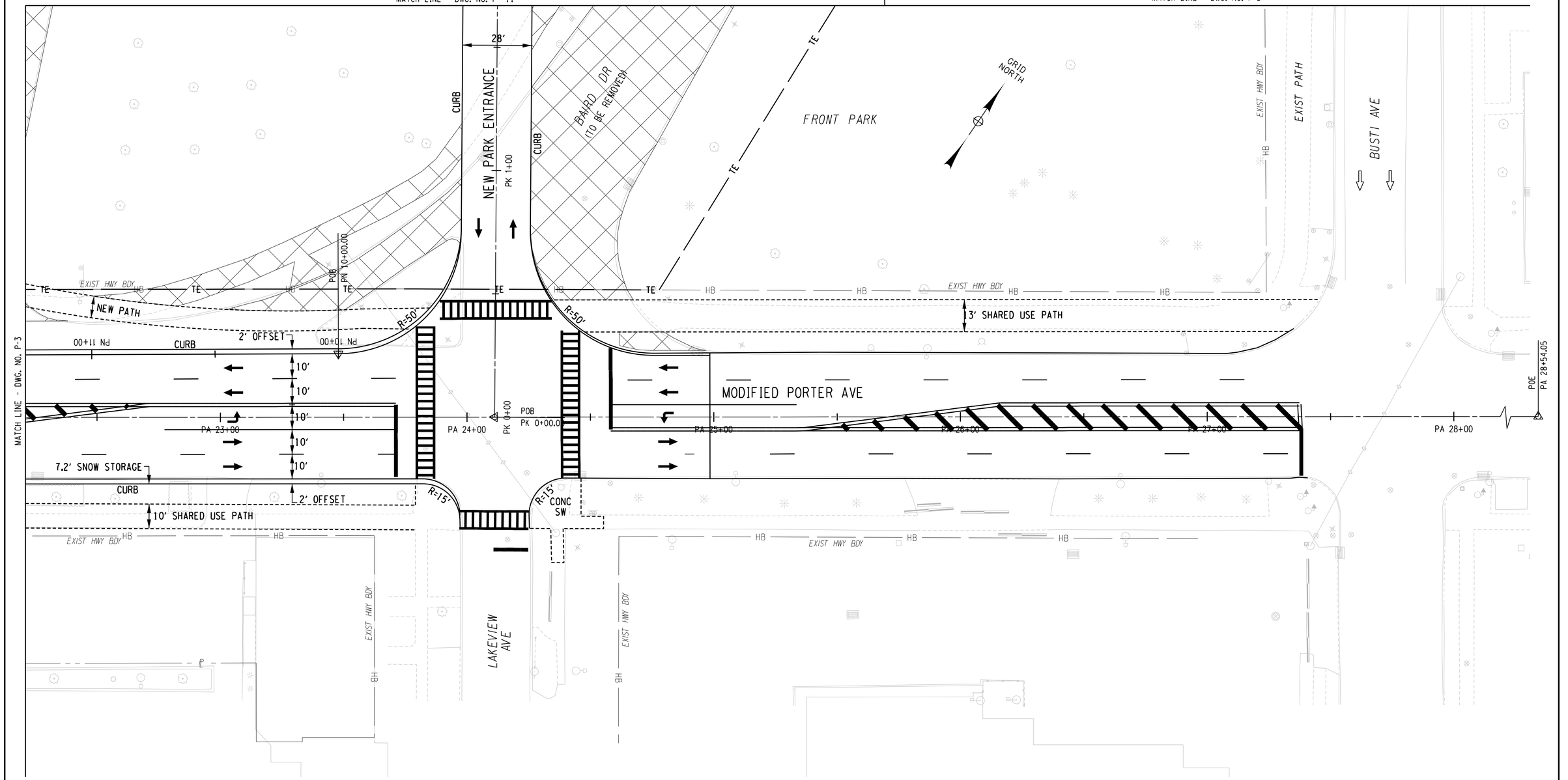
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

ESTIMATED BY ____ CHECKED BY ____
DRAFTED BY ____ CHECKED BY ____
DESIGNED BY ____
JOB MANAGER ____
DESIGN SUPERVISOR ____

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
ROUNDABOUT OPTION

CONTRACT NUMBER
D031040-01

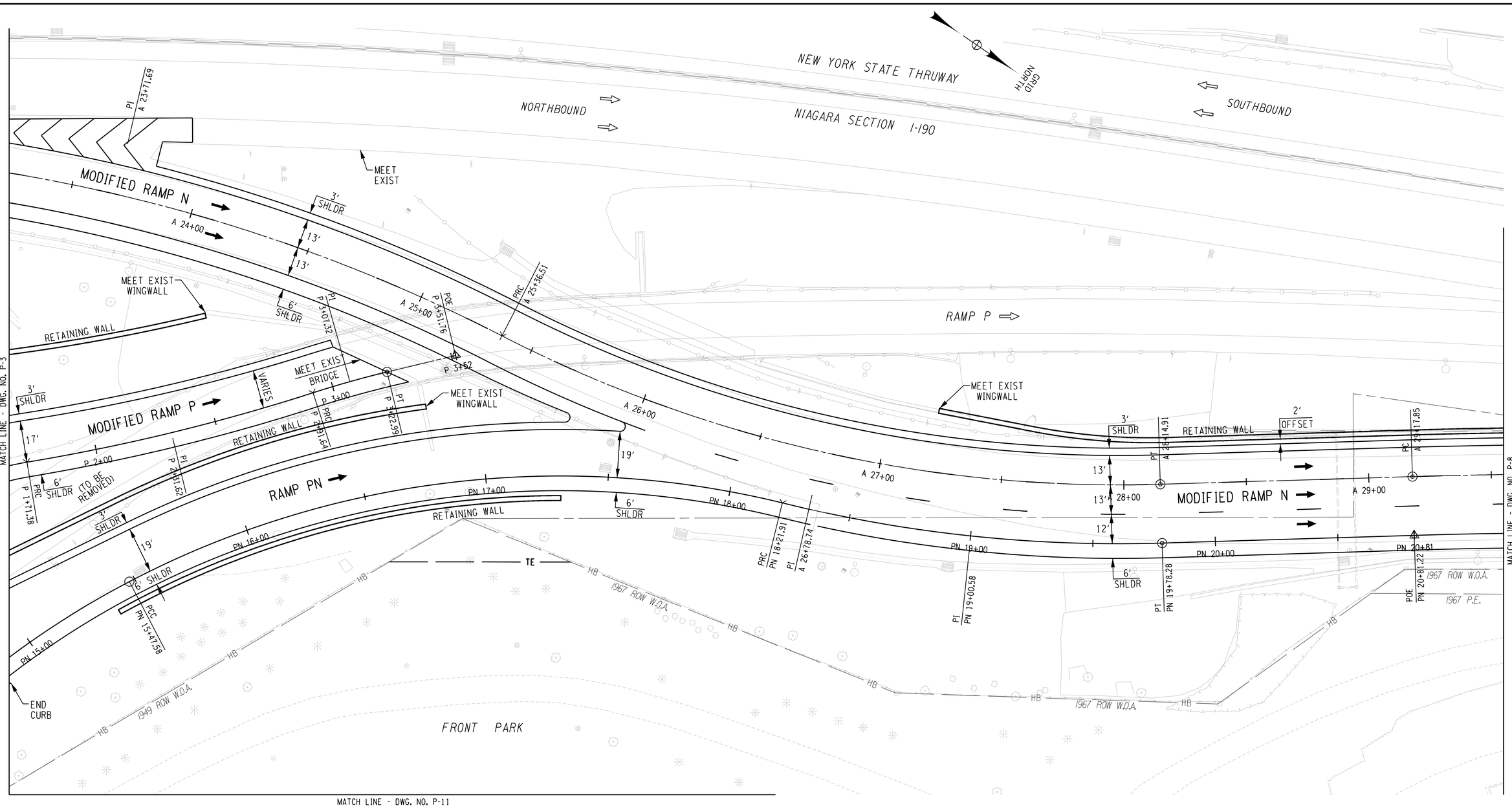
DRAWING NO. P-4
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

DESIGN SUPERVISOR — JOB MANAGER — DESIGNED BY — DRAFTED BY — ESTIMATED BY — CHECKED BY

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



20 0 20 40 Ft

SCALE IN FEET

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

DETAIL PLANS
ROUNDABOUT OPTION

CONTRACT NUMBER
D031040-01

DRAWING NO. P-7
SHEET NO.

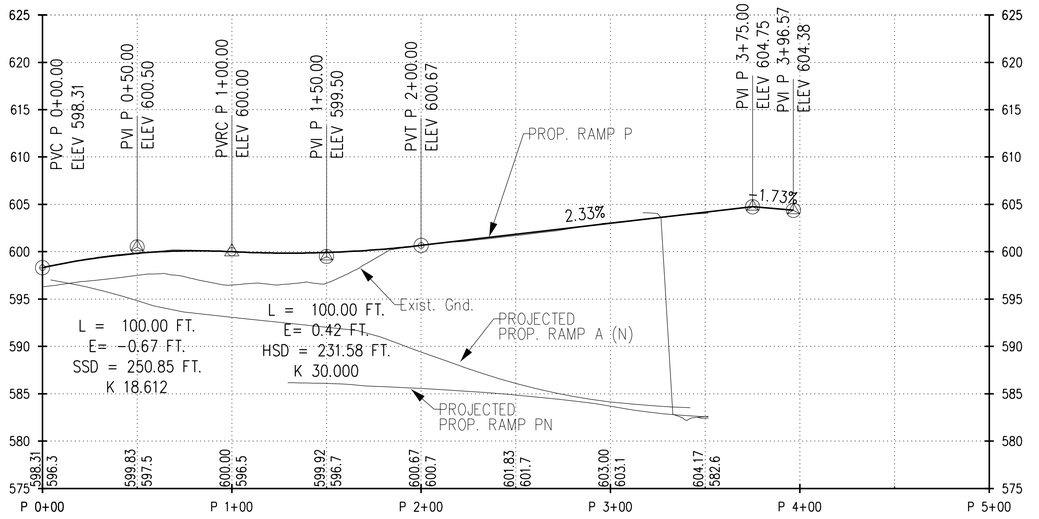
NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

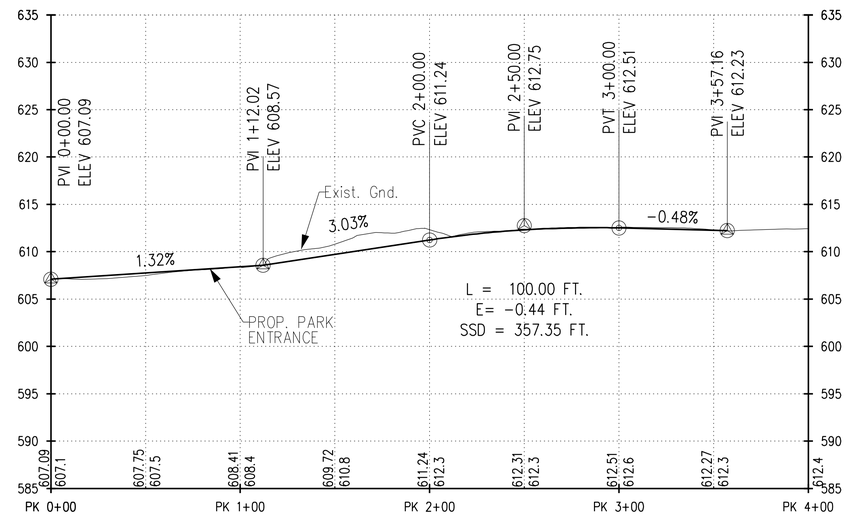
CHECKED BY
DRAFTED BY
ESTIMATED BY
DESIGNED BY
JOB MANAGER
DESIGN SUPERVISOR

FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$

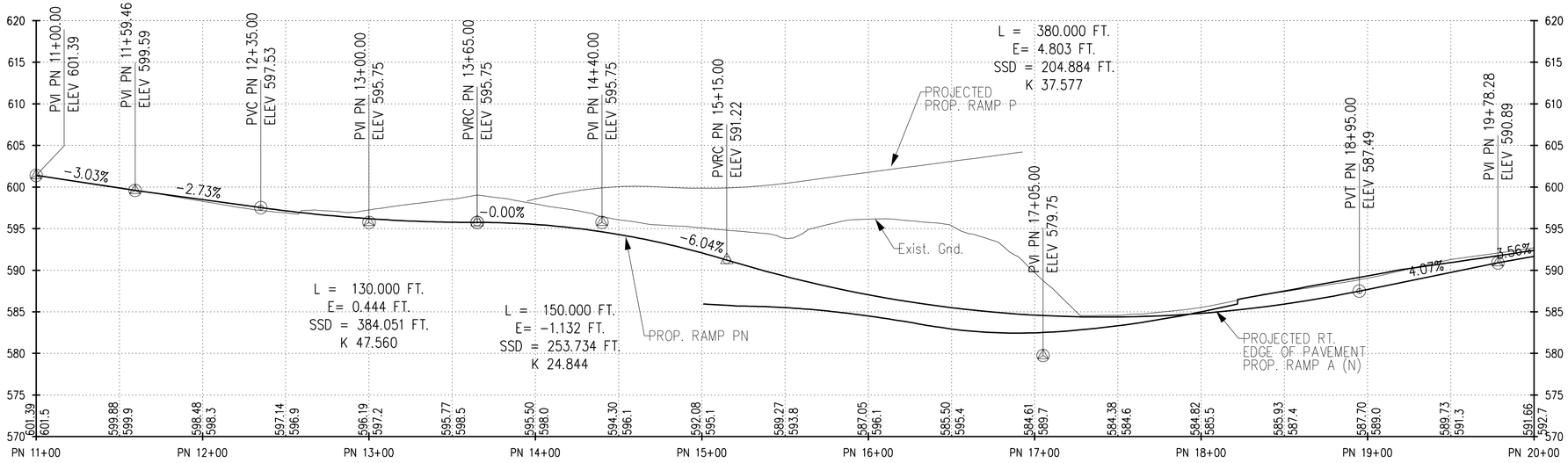
RAMP P - ROUNDABOUT OPTION



PROPOSED PARK - ROUNDABOUT OPTION



RAMP PN - ROUNDABOUT OPTION



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

4 0 4 8 FT
VERT. SCALE IN FEET

40 0 40 80 FT
HORZ. SCALE IN FEET

$FILE$
$DATE$ $TIME$
$USERNAME$

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NEW YORK GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
U.S. PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

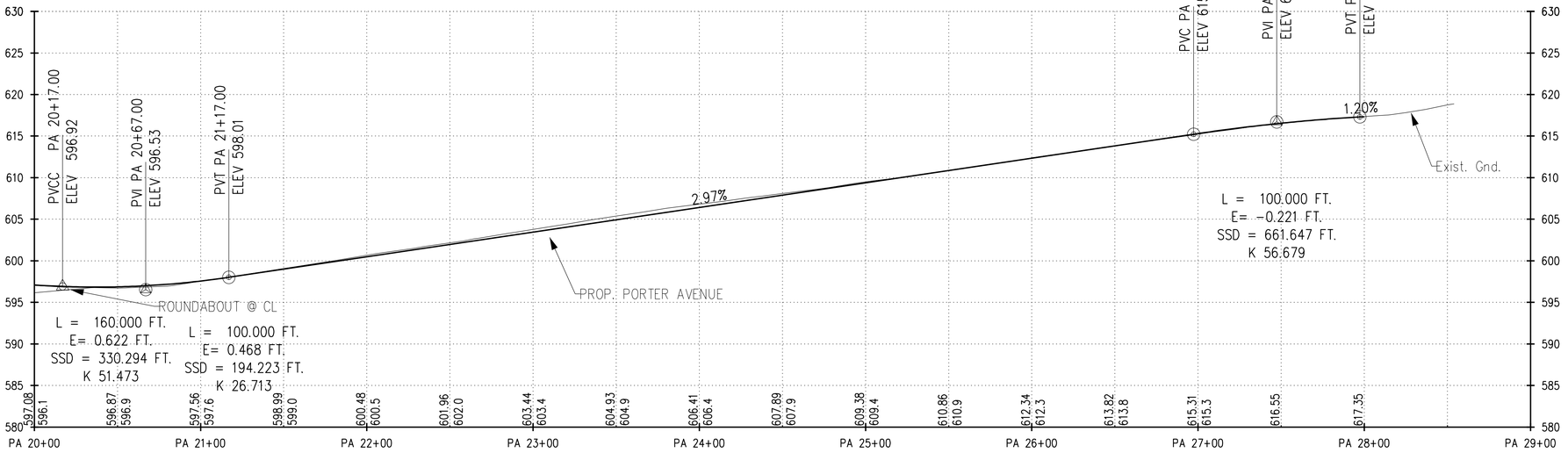
PROFILE RAMP P, PN. & PARK ROAD
ROUNDABOUT OPTION

CONTRACT NUMBER
D031040-01
DRAWING NO. PF-9
SHEET NO.

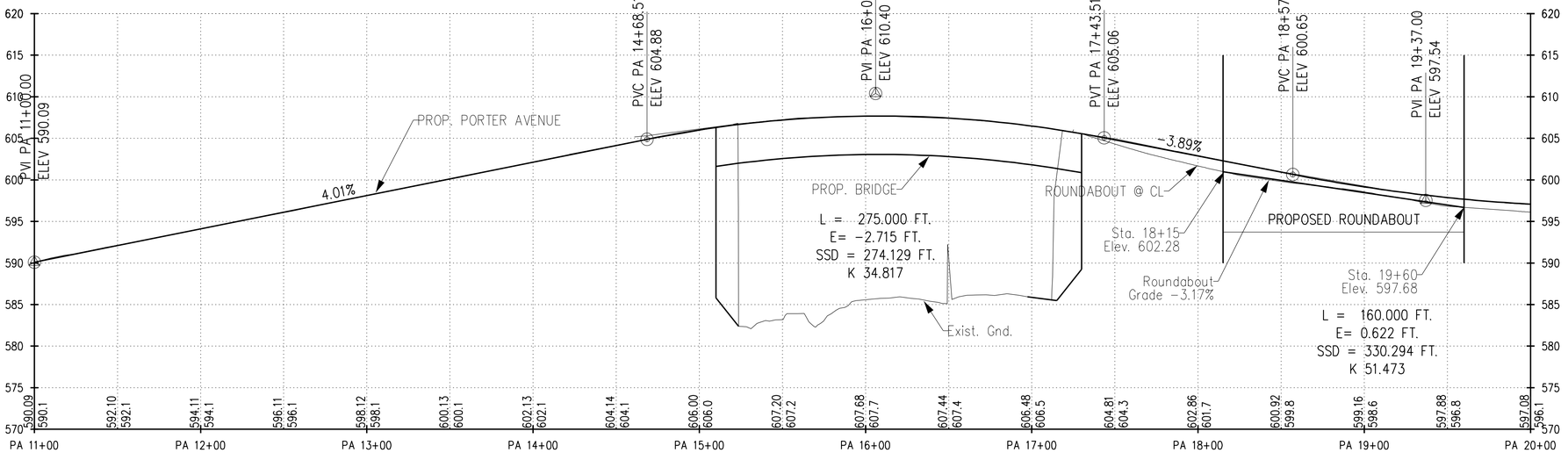
NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

PORTER AVENUE - ROUNDABOUT OPTION (con't)



PORTER AVENUE - ROUNDABOUT OPTION



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

4 0 4 8 FT
VERT. SCALE IN FEET

40 0 40 80 FT
HORZ. SCALE IN FEET

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NEW YORK GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
U.S. PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

PROFILE PORTER AVENUE
ROUNDABOUT OPTION

CONTRACT NUMBER
D031040-01

DRAWING NO. PF-10

SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

$FILE$
$DATE$ $TIME$
$USERNAME$

4.Curve Data

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **RAMP N**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 1**		
PC (81)	A 22+00.00	1056274.27	1064027.13
PI ( )	A 23+71.69	1056414.27	1063927.74
CC (82)		1056672.51	1064588.15
PRC (83)	A 25+36.51	1056584.56	1063905.79
Radius:	688		
Delta:	28^01'28"	Right	
Degree of Curvature(Arc):	8^19'40"		
Length:	336.51		
Tangent:	171.69		
Chord:	333.17		
Middle Ordinate:	20.47		
External:	21.1		
Tangent Direction:	N 35^22'09" W		
Element: Circular	**CURVE NO. 2**		
PRC (83)	A 25+36.51	1056584.56	1063905.79
PI ( )	A 26+78.74	1056725.62	1063887.61
CC (84)		1056513.99	1063358.32
PT (90)	A 28+14.91	1056840.32	1063803.53
Radius:	552		
Delta:	28^53'47"	Left	
Degree of Curvature(Arc):	10^22'47"		
Length:	278.39		
Tangent:	142.22		
Chord:	275.45		
Middle Ordinate:	17.46		
External:	18.03		
Tangent Direction:	N 7^20'41" W		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **RAMP N / RAMP A OVERLAP**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 3**		
PC (91)	A 29+17.85	1056923.35	1063742.67
PI ( )	A 29+96.03	1056986.4	1063696.45
CC (85)		1058254.7	1065558.99
PCC (92)	A 30+74.14	1057052.51	1063654.72
Radius:	2252		
Delta:	3^58'35"	Right	
Degree of Curvature(Arc):	2^32'39"		
Length:	156.29		
Tangent:	78.18		
Chord:	156.26		
Middle Ordinate:	1.36		
External:	1.36		
Tangent Direction:	N 36^14'28" W		
Element: Circular	**CURVE NO. 4**		
PCC (92)	A 30+74.14	1057052.51	1063654.72
PI ( )	A 32+17.22	1057173.5	1063578.34
CC (86)		1057853.26	1064923.11
PT (93)	A 33+59.44	1057306.74	1063526.21
Radius:	1500		
Delta:	10^53'51"	Right	
Degree of Curvature(Arc):	3^49'11"		
Length:	285.3		
Tangent:	143.08		
Chord:	284.87		
Middle Ordinate:	6.78		
External:	6.81		
Tangent Direction:	N 32^15'53" W		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **RAMP A**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 5**		
PC (94)	A 33+59.46	1057306.76	1063526.2
PI ( )	A 35+07.32	1057444.46	1063472.33
CC (87)		1057373.07	1063695.69
PT (95)	A 36+07.81	1057525.39	1063596.08
Radius:	182		
Delta:	78^11'04"	Right	
Degree of Curvature(Arc):	31^28'52"		
Length:	248.35		
Tangent:	147.87		
Chord:	229.53		
Middle Ordinate:	40.74		
External:	52.5		
Tangent Direction:	N 21^22'02" W		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **RAMP C**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 1**		
PC (125)	C 21+86.60	1057781.24	1063481.22
PI ( )	C 23+88.70	1057581.49	1063450.52
CC (129)		1057787.09	1063443.17
PT (130)	C 22+93.06	1057778.54	1063405.63
Radius:	38.5		
Delta:	158^25'42"	Right	
Degree of Curvature(Arc):	148^49'13"		
Length:	106.46		
Tangent:	202.10		
Chord:	75.64		
Middle Ordinate:	31.30		
External:	167.23		
Tangent Direction:	S 8^44'17" W		
Element: Circular	**CURVE NO. 2**		
PC (126)	C 23+93.23	1057876.21	1063383.38
PI ( )	C 25+13.89	1057993.85	1063356.58
CC (131)		1058120.54	1064455.90
PT (132)	C 26+33.58	1058114.50	1063355.92
Radius:	1100		
Delta:	12^31'08"	Right	
Degree of Curvature(Arc):	5^12'31"		
Length:	240.34		
Tangent:	120.65		
Chord:	239.87		
Middle Ordinate:	6.56		
External:	6.60		
Tangent Direction:	N 12^50'01" W		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **RAMP D**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 1**		
PC (103)	D 6+78.88	1057733.21	1063475.09
PI ( )	D 8+37.98	1057606.1	1063379.4
CC (110)		1057782.53	1063409.58
PT (111)	D 8+58.45	1057757.79	1063331.4
Radius:	82		
Delta:	125^28'04"	Right	
Degree of Curvature(Arc):	69^52'22"		
Length:	179.57		
Tangent:	159.1		
Chord:	145.78		
Middle Ordinate:	44.43		
External:	96.99		
Tangent Direction:	S 36^58'19" W		
Element: Circular	**CURVE NO. 2**		
PC (104)	D 13+31.63	1058208.91	1063188.64
PI ( )	D 14+87.42	1058357.45	1063141.63
CC (112)		1058492.52	1064084.83
PT (114)	D 16+40.41	1058513.2	1063145.06
Radius:	940		
Delta:	18^49'15"	Right	
Degree of Curvature(Arc):	6^05'43"		
Length:	308.78		
Tangent:	155.79		
Chord:	307.39		
Middle Ordinate:	12.65		
External:	12.82		
Tangent Direction:	N 17^33'37" W		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **RAMP D**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 3**		
PC (105)	D 19+00.47	1058773.2	1063150.78
PI ( )	D 19+94.04	1058866.75	1063152.84
CC (286)		1058894.43	1057642.12
PT (287)	D 20+87.59	1058960.31	1063151.72
Radius:	5510		
Delta:	1^56'45"	Left	
Degree of Curvature(Arc):	1^02'23"		
Length:	187.12		
Tangent:	93.57		
Chord:	187.11		
Middle Ordinate:	0.79		
External:	0.79		
Tangent Direction:	N 1^15'38" E		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **RAMP NE**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 1**		
PC (40)	N 10+00.00	1057046.11	1063644.57
PI ( )	N 11+56.03	1057178.04	1063561.28
CC (86)		1057853.26	1064923.11
PT (41)	N 13+10.96	1057324.21	1063506.68
Radius:	1512		
Delta:	11^47'01"	Right	
Degree of Curvature(Arc):	3^47'22"		
Length:	310.96		
Tangent:	156.03		
Chord:	310.41		
Middle Ordinate:	7.99		
External:	8.03		
Tangent Direction:	N 32^15'53" W		
Element: Circular	**CURVE NO. 2**		
PC (42)	N 16+62.29	1057653.33	1063383.75
PI ( )	N 18+40.12	1057819.92	1063321.53
CC (121)		1058003.23	1064320.54
PT (122)	N 20+14.26	1057997.74	1063320.56
Radius:	1000		
Delta:	20^09'58"	Right	
Degree of Curvature(Arc):	5^43'47"		
Length:	351.97		
Tangent:	177.82		
Chord:	350.15		
Middle Ordinate:	15.45		
External:	15.69		
Tangent Direction:	N 20^28'52" W		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **RAMP NE**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 3**		
PC (43)	N 21+46.24	1058129.71	1063319.83
PI ( )	N 21+85.89	1058169.37	1063319.61
CC (123)		1058140.77	1065331.80
PT (124)	N 22+25.54	1058209.00	1063320.96
Radius:	2012		
Delta:	2^15'29"	Right	
Degree of Curvature(Arc):	2^50'52"		
Length:	79.30		
Tangent:	39.65		
Chord:	79.29		
Middle Ordinate:	0.39		
External:	0.39		
Tangent Direction:	N 00^18'53" W		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **RAMP P**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 1**		
PC ( )	P 12+51.69	1056482.8	1064030.08
PI ( )	P 12+90.37	1056509.02	1064001.63
CC (10)		1055879.74	1063474.46
PRC (11)	P 13+29.00	1056532.44	1063970.84
Radius:	820		
Delta:	5^24'08"	Left	
Degree of Curvature(Arc):	6^59'14"		
Length:	77.32		
Tangent:	38.69		
Chord:	77.29		
Middle Ordinate:	0.91		
External:	0.91		
Tangent Direction:	N 47^20'39" W		
Element: Circular	**CURVE NO. 2**		
PRC (11)	P 13+29.00	1056532.44	1063970.84
PI ( )	P 13+46.12	1056542.8	1063957.21
CC ( )		1056862.05	1064221.51
PT (12)	P 13+63.22	1056554.25	1063944.49
Radius:	414.11		
Delta:	4^44'01"	Right	
Degree of Curvature(Arc):	13^50'09"		
Length:	34.21		
Tangent:	17.12		
Chord:	34.2		
Middle Ordinate:	0.35		
External:	0.35		
Tangent Direction:	N 52^44'48" W		
Tangent Direction:	N 48^00'47" W		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **RAMP PN**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 1**		
PC (6)	PN 3+58.37	1056481.25	1064360.14
PI ( )	PN 4+86.56	1056409.1	1064254.18
CC (13)		1056646.56	1064247.57
PT (14)	PN 5+86.37	1056475.24	1064144.37
Radius:	200		
Delta:	65^18'57"	Right	
Degree of Curvature(Arc):	28^38'52"		
Length:	227.99		
Tangent:	128.19		
Chord:	215.85		
Middle Ordinate:	31.62		
External:	37.56		
Tangent Direction:	S 55^44'57" W		
Tangent Direction:	N 58^56'06" W		
Element: Circular	**CURVE NO. 2**		
PC (2)	PN 6+83.73	1056525.49	1064060.97
PI ( )	PN 8+01.79	1056586.4	1063959.84
CC (4)		1056833.86	1064246.73
PRC (5)	PN 9+11.89	1056695.38	1063914.43
Radius:	360		
Delta:	36^18'46"	Right	
Degree of Curvature(Arc):	15^54'56"		
Length:	228.16		
Tangent:	118.06		
Chord:	224.36		
Middle Ordinate:	17.92		
External:	18.86		
Tangent Direction:	N 58^56'06" W		
Tangent Direction:	N 22^37'21" W		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **RAMP PN**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 3**		
PRC (5)	PN 9+11.89	1056695.38	1063914.43
PI ( )	PN 9+97.87	1056774.74	1063881.36
CC (7)		1056418.43	1063249.83
PT (9)	PN 10+83.03	1056844.08	1063830.53
Radius:	720		
Delta:	13^37'08"	Left	
Degree of Curvature(Arc):	7^57'28"		
Length:	171.14		
Tangent:	85.97		
Chord:	170.74		
Middle Ordinate:	5.08		
External:	5.11		
Tangent Direction:	N 22^37'21" W		
Tangent Direction:	N 36^14'28" W		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **RIVERWALK**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 1**		
PC (884)	RW 11+27.71	1058161.57	1063000.95
PI ( )	RW 11+41.41	1058175.26	1063000.31
CC (887)		1058147.63	1062701.27
PT (888)	RW 11+55.10	1058188.83	1062998.43
Radius:	300		
Delta:	5^13'46"	Left	
Degree of Curvature(Arc):	19^05'55"		
Length:	27.38		
Tangent:	13.7		
Chord:	27.37		
Middle Ordinate:	0.31		
External:	0.31		
Tangent Direction:	N 2^39'48" W		
Tangent Direction:	N 7^53'34" W		
Element: Circular	**CURVE NO. 2**		
PC (885)	RW 11+62.75	1058196.41	1062997.38
PI ( )	RW 12+01.18	1058234.47	1062992.1
CC (889)		1058223.88	1063195.49
PT (890)	RW 12+38.68	1058271.78	1063001.31
Radius:	200		
Delta:	21^45'03"	Right	
Degree of Curvature(Arc):	28^38'52"		
Length:	75.92		
Tangent:	38.42		
Chord:	75.47		
Middle Ordinate:	3.59		
External:	3.66		
Tangent Direction:	N 7^53'34" W		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **RIVERWALK**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 3**		
PC (142)	RW 12+98.34	1058329.7	1063015.6
PI ( )	RW 13+19.66	1058350.4	1063020.7
CC (886)		1058377.61	1062821.42
PT (891)	RW 13+40.81	1058371.71	1063021.33
Radius:	200		
Delta:	12^10'03"	Left	
Degree of Curvature(Arc):	28^38'52"		
Length:	42.47		
Tangent:	21.32		
Chord:	42.39		
Middle Ordinate:	1.13		
External:	1.13		
Tangent Direction:	N 13^51'28" E		
Element: Circular	**CURVE NO. 4**		
PC (892)	RW 17+89.92	1058820.62	1063034.58
PI ( )	RW 18+25.78	1058856.46	1063035.64
CC (916)		1058819.53	1063071.56
PT (917)	RW 18+46.88	1058856.53	1063071.49
Radius:	37		
Delta:	88^12'03"	Right	
Degree of Curvature(Arc):	154^51'12"		
Length:	56.96		
Tangent:	35.86		
Chord:	51.5		
Middle Ordinate:	10.43		
External:	14.52		
Tangent Direction:	N 1^41'25" E		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **RIVERWALK**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 5**		
PC (913)	RW 20+07.57	1058856.83	1063232.19
PI ( )	RW 20+49.14	1058856.91	1063273.75
CC (914)		1058901.83	1063232.1
PT (915)	RW 20+74.69	1058898.35	1063276.97
Radius:	45		
Delta:	85^27'03"	Left	
Degree of Curvature(Arc):	127^19'26"		
Length:	67.11		
Tangent:	41.56		
Chord:	61.06		
Middle Ordinate:	11.94		
External:	16.26		
Tangent Direction:	N 89^53'28" E		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **PARK ROAD**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 1**		
PC (905)	PK 1+74.50	1056787.66	1064543.01
PI ( )	PK 2+19.32	1056824.77	1064517.88
CC (908)		1056746.16	1064481.74
PT (909)	PK 2+55.10	1056819.68	1064473.35
Radius:	74		
Delta:	62^24'06"	Left	
Degree of Curvature(Arc):	77^25'36"		
Length:	80.59		
Tangent:	44.82		
Chord:	76.67		
Middle Ordinate:	10.7		
External:	12.51		
Tangent Direction:	N 34^06'41" W		
Element: Circular	**CURVE NO. 2**		
PC (906)	PK 2+55.11	1056819.68	1064473.33
PI ( )	PK 3+06.76	1056813.82	1064422.02
CC (910)		1057084.96	1064443.04
PT (911)	PK 3+57.15	1056827.52	1064372.22
Radius:	267		
Delta:	21^53'44"	Right	
Degree of Curvature(Arc):	21^27'33"		
Length:	102.03		
Tangent:	51.65		
Chord:	101.41		
Middle Ordinate:	4.86		
External:	4.95		
Tangent Direction:	S 83^29'14" W		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **ACCESS ROAD INBOUND**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 1**		
PC ( )	ARI 0+05.00	1057760.81	1063151.72
PI ( )	ARI 0+70.54	1057695.6	1063158.23
CC ( )		1058165.75	1067202.86
PRC ( )	ARI 1+36.06	1057630.63	1063166.85
Radius:	4071.33		
Delta:	1^50'40"	Left	
Degree of Curvature(Arc):	1^24'26"		
Length:	131.06		
Tangent:	65.54		
Chord:	131.06		
Middle Ordinate:	0.53		
External:	0.53		
Tangent Direction:	S 5^42'30" E		
Tangent Direction:	S 7^33'10" E		
Element: Circular	**CURVE NO. 2**		
PRC ( )	ARI 1+36.06	1057630.63	1063166.85
PI ( )	ARI 3+58.86	1057409.77	1063196.13
CC ( )		1057628	1063147.02
PT ( )	ARI 1+95.32	1057621.88	1063127.98
Radius:	20		
Delta:	169^44'26"	Right	
Degree of Curvature(Arc):	286^28'44"		
Length:	59.25		
Tangent:	222.79		
Chord:	39.84		
Middle Ordinate:	18.21		
External:	203.69		
Tangent Direction:	S 7^33'10" E		
Tangent Direction:	N 17^48'44" W		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **ACCESS ROAD INBOUND**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 3**		
PC ( )	ARI 1+95.32	1057621.88	1063127.98
PI ( )	ARI 2+56.07	1057679.72	1063109.4
CC ( )		1058379.73	1065486.69
PT ( )	ARI 3+16.80	1057738.41	1063093.67
Radius:	2477.47		
Delta:	2^48'34"	Right	
Degree of Curvature(Arc):	2^18'46"		
Length:	121.48		
Tangent:	60.75		
Chord:	121.47		
Middle Ordinate:	0.74		
External:	0.74		
Tangent Direction:	N 17^48'44" W		
Tangent Direction:	N 15^00'09" W		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **ACCESS ROAD INBOUND**

	STATION	NORTHING	EASTING
OPTION A TRAFFIC SIGNAL			
Horizontal Alignment Name:	**ACCESS ROAD OUTBOUND**		
	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 1**		
PC (50)	ARO 10+34.03	1057486.25	1063154.51
PI ( )	ARO 11+81.25	1057623.73	1063101.85
CC (51)		1058379.73	1065486.7
PT (52)	ARO 13+28.13	1057766.44	1063065.7
Radius:	2497.48		
Delta:	6^44'49"	Right	
Degree of Curvature(Arc):	2^17'39"		
Length:	294.1		
Tangent:	147.22		
Chord:	293.93		
Middle Ordinate:	4.33		
External:	4.34		
Tangent Direction:	N 20^57'44" W		
Tangent Direction:	N 14^12'55" W		

OPTION A TRAFFIC SIGNAL

Horizontal Alignment Name: **PORTER AVENUE**

	STATION	NORTHING	EASTING
Element: Linear			
POB (18)	50+00.00	1055847.57	1063487.43
EQNBK ( )	50+00.00	1055847.58	1063487.43
EQNAHD ( )	PA 50+00.00	1055847.58	1063487.43
PI (98)	PA 57+07.79	1056250.33	1064069.46
Tangent Direction:	N 55^19'03" E		
Tangent Length:	707.79		
Element: Linear			
PI (98)	PA 57+07.79	1056250.33	1064069.46
POE (19)	PA 67+89.96	1056863.55	1064961.12
Tangent Direction:	N 55^28'57" E		
Tangent Length:	1082.17		

OPTION B ROUNDABOUT

Horizontal Alignment Name: **RAMP P**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 1**		
PC (19)	P 0+63.74	1056425.63	1064156.85
PI ( )	P 1+23.09	1056411.27	1064099.25
CC ( )		1056525.28	1064132.01
PRC (24)	P 1+71.38	1056454.01	1064058.06
Radius:	102.71		
Delta:	60^02'53"	Right	
Degree of Curvature(Arc):	55^47'12"		
Length:	107.64		
Tangent:	59.35		
Chord:	102.78		
Middle Ordinate:	13.78		
External:	15.92		
Tangent Direction:	S 76^00'20" W		
Element: Circular	**CURVE NO. 2**		
PRC (24)	P 1+71.38	1056454.01	1064058.06
PI ( )	P 2+31.62	1056497.38	1064016.26
CC ( )		1055884.94	1063467.67
PRC (25)	P 2+91.64	1056534.18	1063968.56
Radius:	820		
Delta:	8^24'12"	Left	
Degree of Curvature(Arc):	6^59'14"		
Length:	120.27		
Tangent:	60.24		
Chord:	120.16		
Middle Ordinate:	2.2		
External:	2.21		
Tangent Direction:	N 43^56'47" W		

OPTION B ROUNDABOUT

Horizontal Alignment Name: **RAMP P**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 3**		
PRC (25)	P 2+91.64	1056534.18	1063968.56
PI ( )	P 3+07.32	1056543.76	1063956.14
CC ( )		1056862.05	1064221.51
PT (26)	P 3+22.99	1056554.25	1063944.49
Radius:	414.11		
Delta:	4^20'13"	Right	
Degree of Curvature(Arc):	13^50'09"		
Length:	31.34		
Tangent:	15.68		
Chord:	31.34		
Middle Ordinate:	0.3		
External:	0.3		
Tangent Direction:	N 52^20'59" W		

OPTION B ROUNDABOUT

Horizontal Alignment Name: **RAMP PN**

	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO. 1**		
PC (2)	PN 11+59.46	1056537.74	1064443.02
PI ( )	PN 13+75.48	1056414.79	1064265.4
CC (6)		1056829.63	1064240.96
PCC (7)	PN 15+47.58	1056516.04	1064074.58
Radius:	355		
Delta:	62^38'32"	Right	
Degree of Curvature(Arc):	16^08'23"		
Length:	388.13		
Tangent:	216.02		
Chord:	369.08		
Middle Ordinate:	51.74		
External:	60.56		
Tangent Direction:	S 55^18'26" W		
Element: Circular	**CURVE NO .2**		
PCC (7)	PN 15+47.58	1056516.04	1064074.58
PI ( )	PN 16+91.03	1056583.27	1063947.86
CC (5)		1056851.71	1064252.68
PRC ( )	PN 18+21.91	1056717.47	1063897.18
Radius:	380		
Delta:	41^21'48"	Right	
Degree of Curvature(Arc):	15^04'40"		
Length:	274.33		
Tangent:	143.45		
Chord:	268.41		
Middle Ordinate:	24.49		
External:	26.17		
Tangent Direction:	N 62^03'02" W		

OPTION B ROUNDABOUT

Horizontal Alignment Name: **RAMP PN**

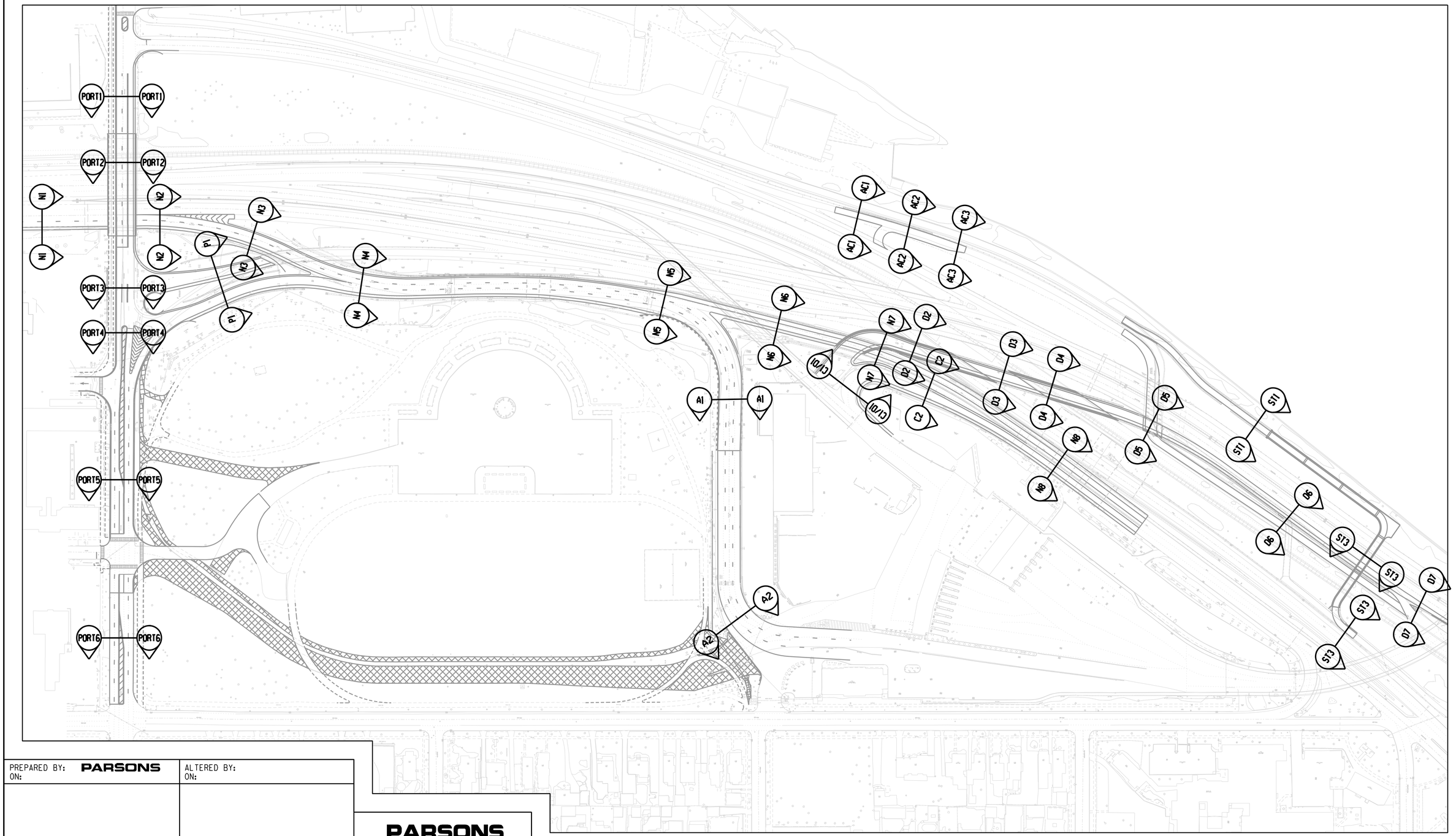
	STATION	NORTHING	EASTING
Element: Circular	**CURVE NO .3**		
PRC ( )	PN 18+21.91	1056717.47	1063897.18
PI ( )	PN 19+00.58	1056791.07	1063869.39
CC (10)		1056513.99	1063358.32
PT (3)	PN 19+78.28	1056854.51	1063822.89
Radius:	576		
Delta:	15^33'14"	Left	
Degree of Curvature(Arc):	9^56'50"		
Length:	156.36		
Tangent:	78.67		
Chord:	155.89		
Middle Ordinate:	5.3		
External:	5.35		
Tangent Direction:	N 20^41'14" W		

OPTION B ROUNDABOUT

Horizontal Alignment Name: **PORTER AVENUE**

	STATION	NORTHING	EASTING
Element: Linear			
POB ( )	PA 10+00.00	1055843.16	1063478.41
PI ( )	PA 18+36.37	1056319.08	1064166.18
Tangent Direction:	N 55^19'03" E		
Tangent Length:	836.37		
Element: Linear			
PI ( )	PA 18+36.37	1056319.08	1064166.18
PI ( )	PA 19+36.39	1056374.04	1064249.74
Tangent Direction:	N 56^40'04" E		
Tangent Length:	100.02		
Element: Linear			
PI ( )	PA 19+36.39	1056374.04	1064249.74
POE ( )	PA 28+54.05	1056894.24	1065005.72
Tangent Direction:	N 55^28'03" E		
Tangent Length:	917.66		

5. Typical Sections



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80

PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

TYPICAL SECTION
KEY PLAN

CONTRACT NUMBER D031040-01

DRAWING NO.

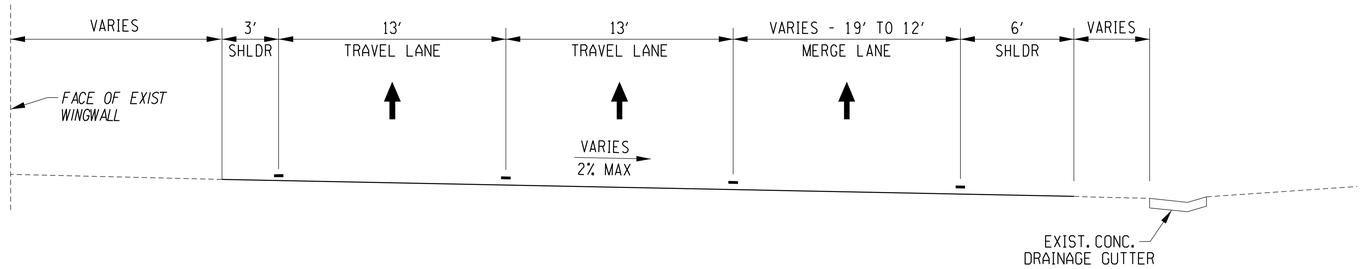
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

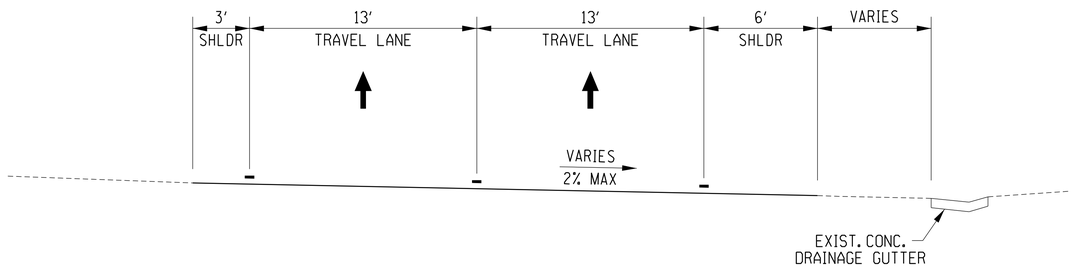
DOCUMENT NAME:

DESIGN SUPERVISOR _____ JOB MANAGER _____ DESIGNED BY _____ DRAFTED BY _____ ESTIMATED BY _____ CHECKED BY _____ CHECKED BY _____

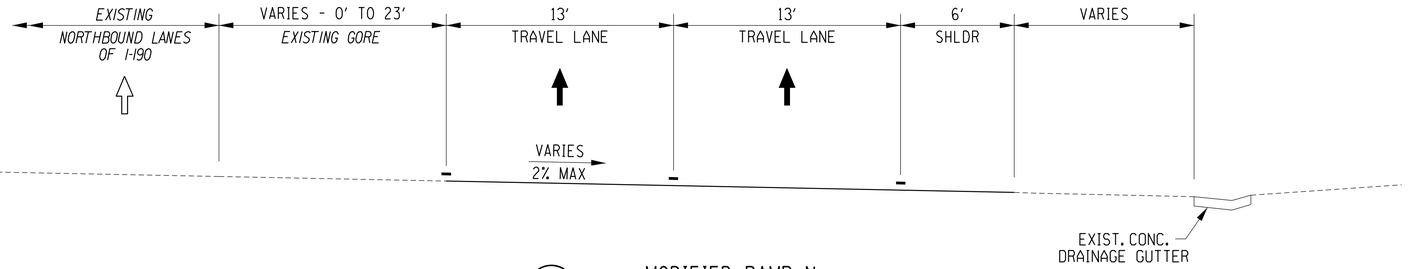
FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



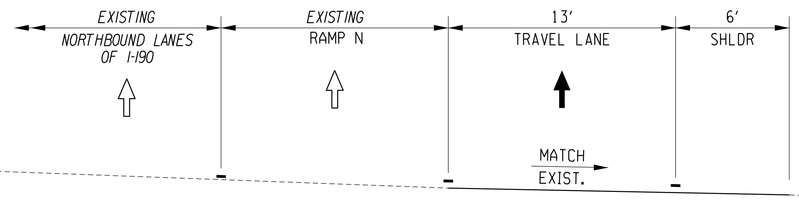
N4 MODIFIED RAMP N
AFTER RAMP PN MERGE



N3 MODIFIED RAMP N
BEFORE RAMP P OVERPASS



N2 MODIFIED RAMP N
AFTER PORTER AVE. OVERPASS



N1 MODIFIED RAMP N
BEFORE PORTER AVE. OVERPASS

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES | CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

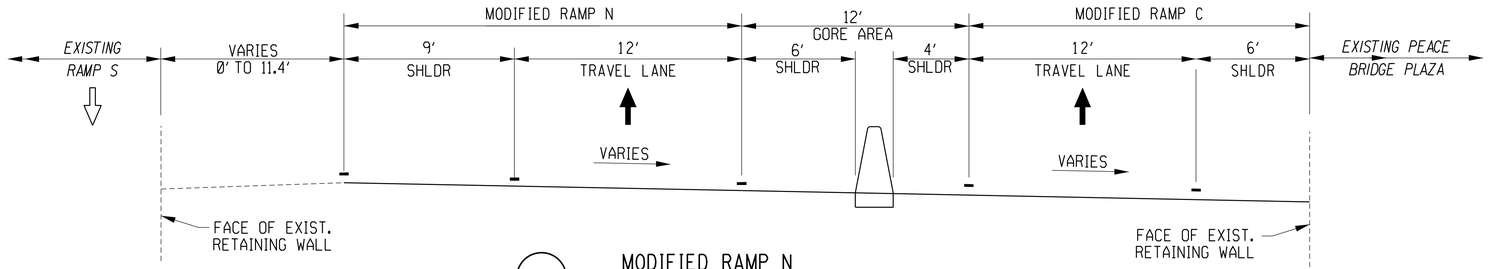
TYPICAL SECTIONS - RAMP N

CONTRACT NUMBER D031040-01
DRAWING NO. TS-1
SHEET NO.

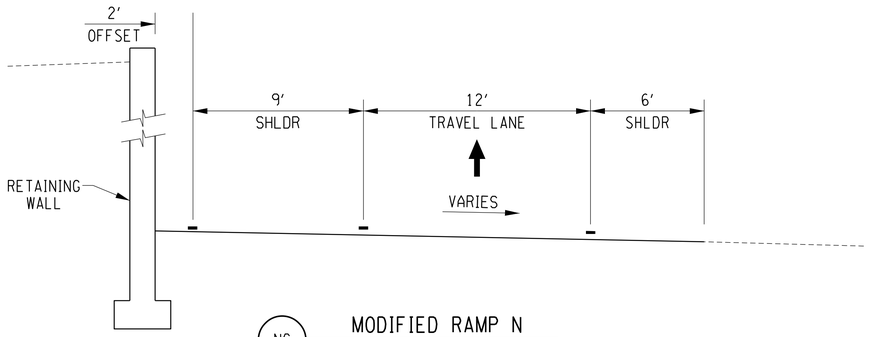
NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION
DOCUMENT NAME:

DESIGN SUPERVISOR ____ JOB MANAGER ____ ESTIMATED BY ____ DRAFTED BY ____ DESIGNED BY ____ CHECKED BY ____ CHECKED BY ____

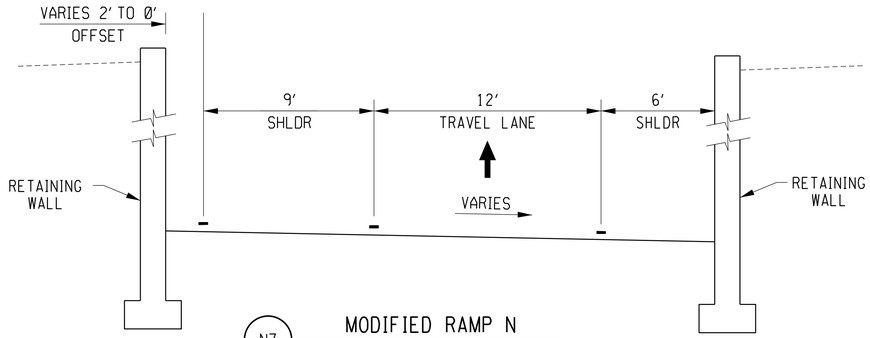
FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



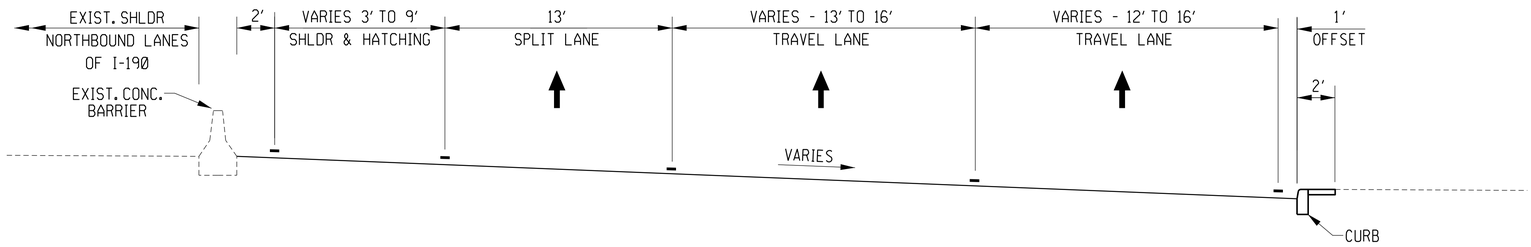
N8 MODIFIED RAMP N @ MODIFIED RAMP C MERGE



N6 MODIFIED RAMP N AFTER RAMP A TURNOFF



N7 MODIFIED RAMP N AFTER RAMP D OVERPASS



N5 MODIFIED RAMP N BEFORE RAMP A TURNOFF

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

TYPICAL SECTIONS - RAMP N

CONTRACT NUMBER D031040-01

DRAWING NO. TS-2

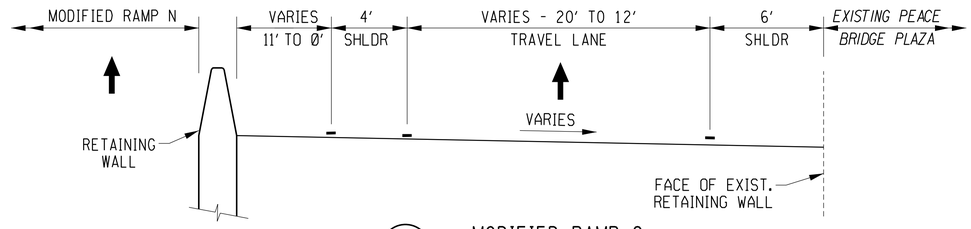
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

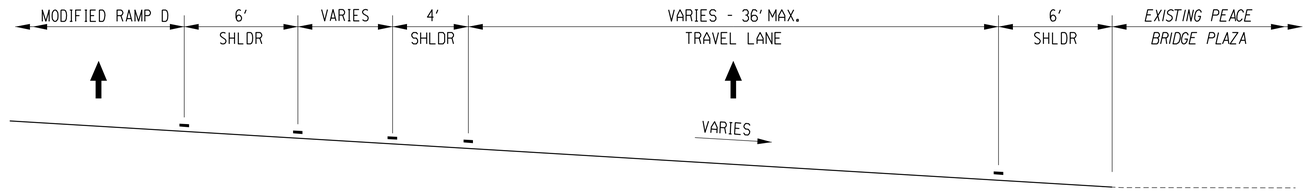
DOCUMENT NAME:

CHECKED BY
DRAFTED BY
ESTIMATED BY
DESIGNED BY
JOB MANAGER
DESIGN SUPERVISOR

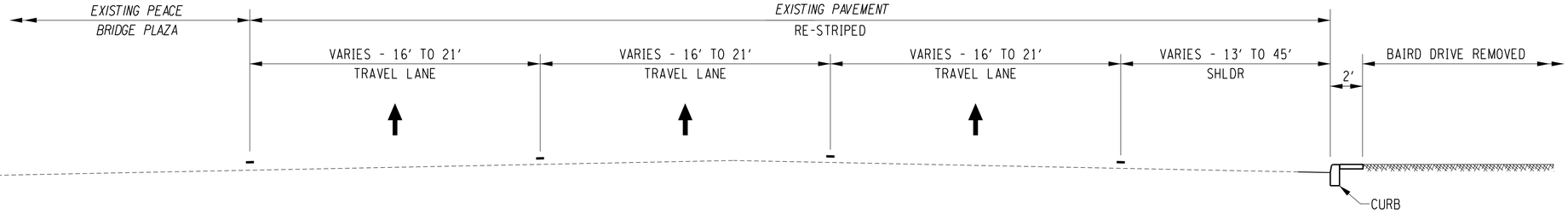
FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



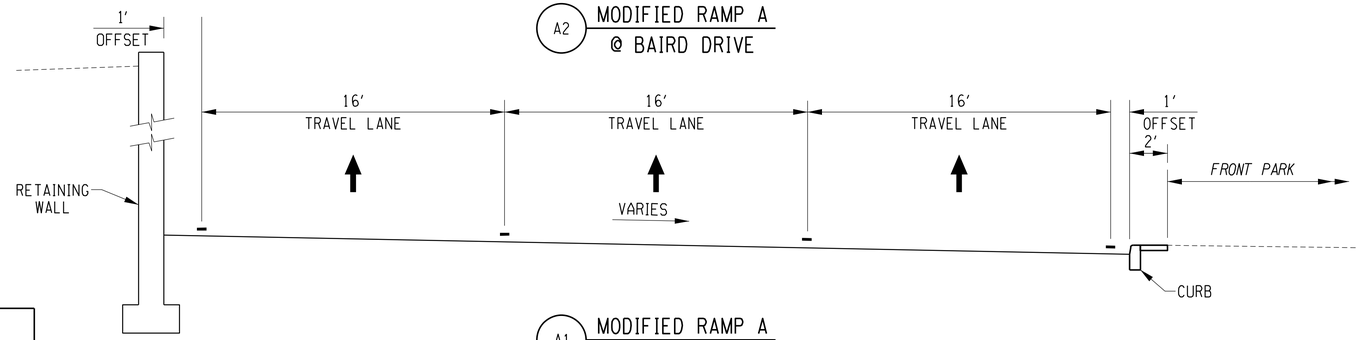
C2 MODIFIED RAMP C
ALONG PEACE BRIDGE
ADMINISTRATION BUILDING



C1 MODIFIED RAMP C
@ BEGINNING CURVE



A2 MODIFIED RAMP A
@ BAIRD DRIVE



A1 MODIFIED RAMP A
ALONG FRONT PARK

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES | CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

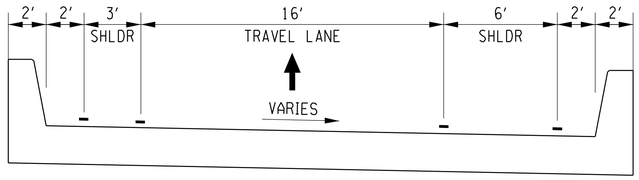
TYPICAL SECTIONS - RAMPS A & C

CONTRACT NUMBER
D031040-01
DRAWING NO. TS-3
SHEET NO.

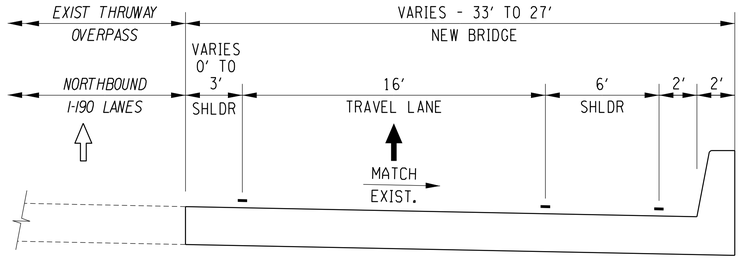
NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

DOCUMENT NAME:

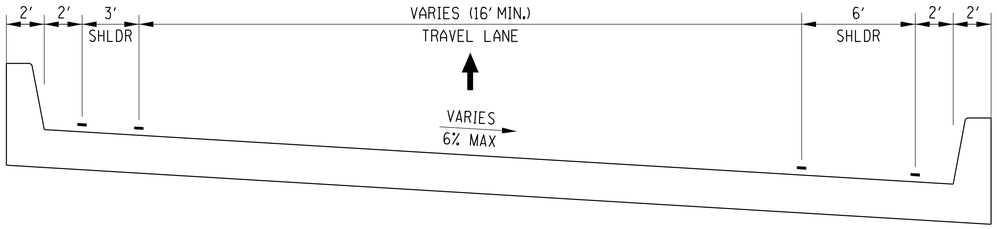
CHECKED BY
DRAFTED BY
ESTIMATED BY
DESIGNED BY
JOB MANAGER
DESIGN SUPERVISOR
FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



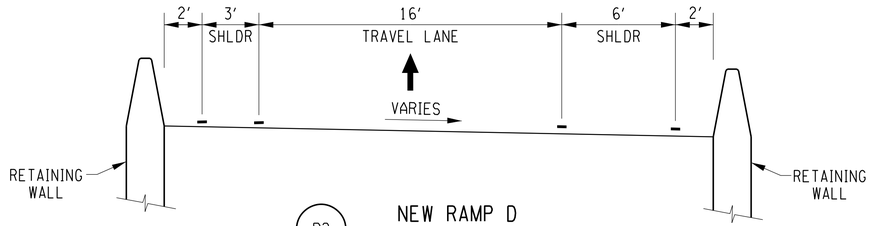
D4 NEW RAMP D
BRIDGE NO. 2
OVER RAILROAD



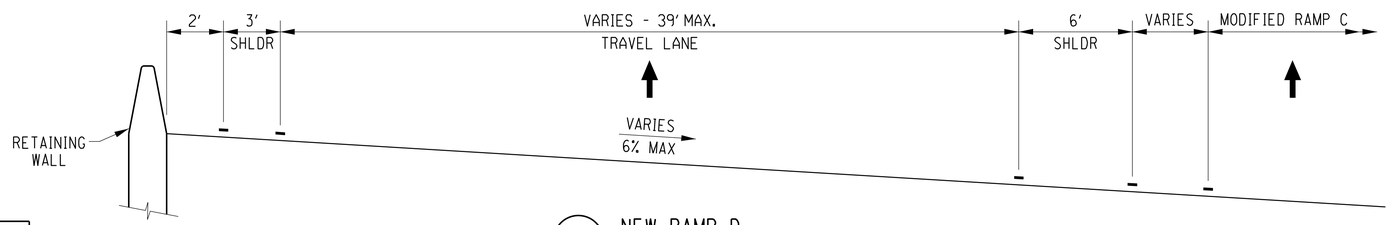
D5 NEW RAMP D
BRIDGE NO. 3 - EXTENSION
OF THRUWAY OVERPASS
OVER ACCESS ROAD



D2 NEW RAMP D
BRIDGE NO. 1
OVER RAMP N & S



D3 NEW RAMP D
BETWEEN BRIDGES NO. 1 & 2
AND BRIDGES NO. 2 & 3



D1 NEW RAMP D
@ BEGINNING

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES | CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

CONTRACT NUMBER
D031040-01

TYPICAL SECTIONS - RAMP D

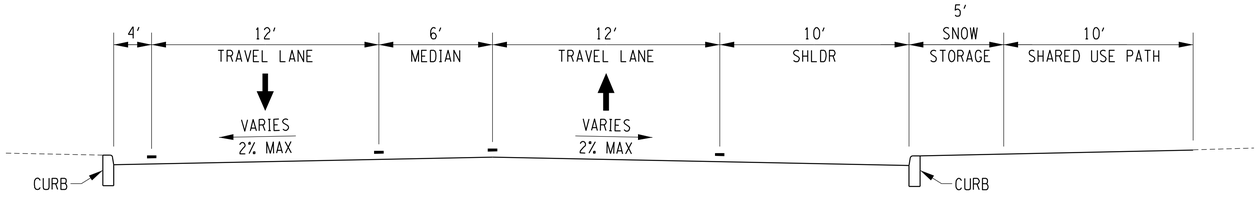
DRAWING NO. TS-4
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

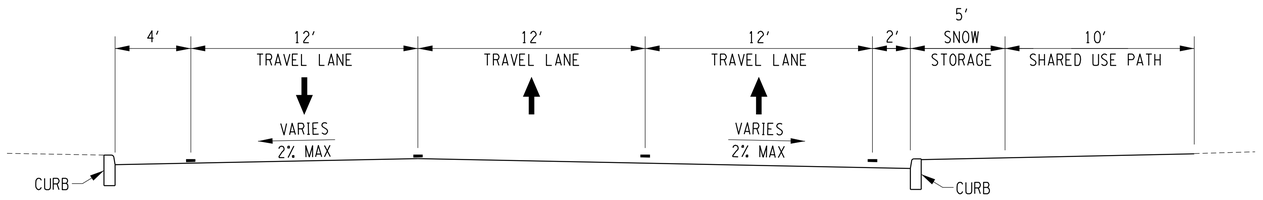
DOCUMENT NAME:

DESIGN SUPERVISOR ____ JOB MANAGER ____ DESIGNED BY ____ DRAFTED BY ____ ESTIMATED BY ____ CHECKED BY ____

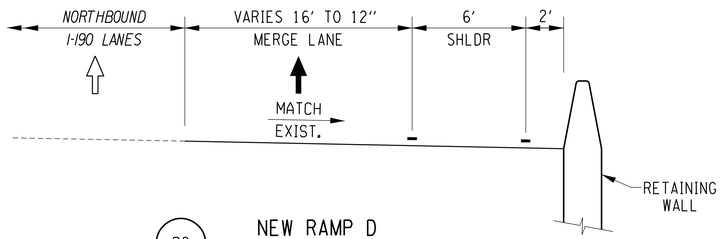
FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



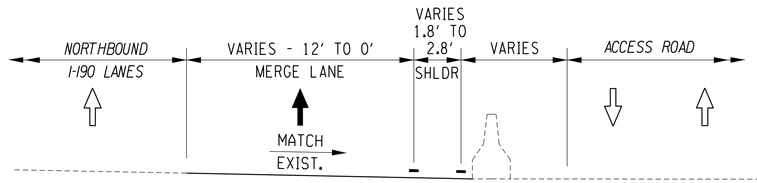
PORT1 — MODIFIED PORTER AVE
WEST OF THRUWAY
OVERPASS
(OPTION B - ROUNDABOUT)



PORT1 — MODIFIED PORTER AVE
WEST OF THRUWAY
OVERPASS
(OPTION A - SIGNAL)



D6 — NEW RAMP D
@ EXISTING RIVERWALK
BRIDGE



D7 — NEW RAMP D
@ PEACE BRIDGE

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

TYPICAL SECTIONS - RAMP D
AND PORTER AVE.

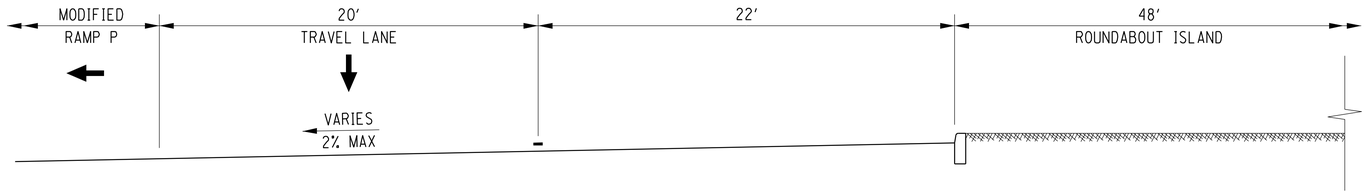
CONTRACT NUMBER
D031040-01
DRAWING NO. TS-5
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

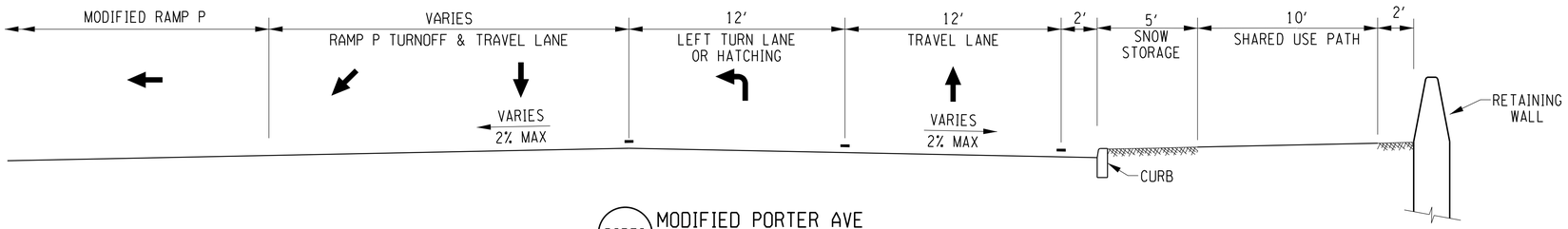
DOCUMENT NAME:

DESIGN SUPERVISOR _____ JOB MANAGER _____ DESIGNED BY _____ DRAFTED BY _____ ESTIMATED BY _____ CHECKED BY _____ CHECKED BY _____

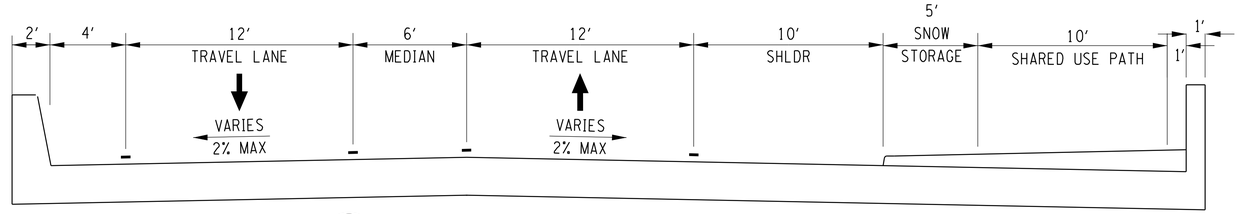
FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



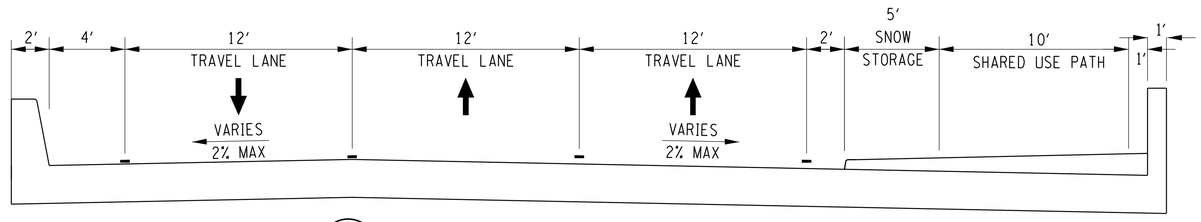
PORT3 MODIFIED PORTER AVE
ROUNDABOUT
(OPTION B - ROUNDABOUT)



PORT3 MODIFIED PORTER AVE
@ MODIFIED RAMP P
(OPTION A - SIGNAL)



PORT2 MODIFIED PORTER AVE
PORTER AVE. OVER
I-190
(OPTION B - ROUNDABOUT)



PORT2 MODIFIED PORTER AVE
PORTER AVE. OVER
I-190
(OPTION A - SIGNAL)

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

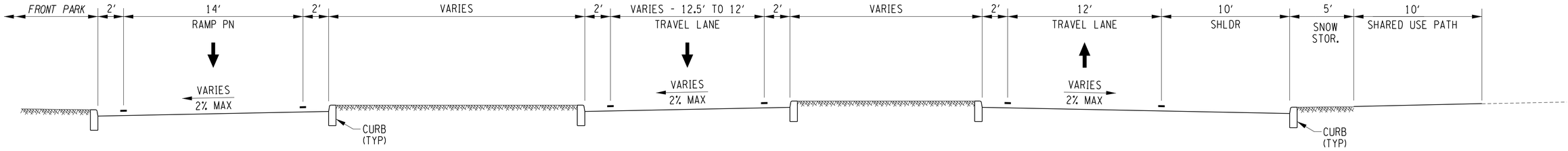
SIGNATURE _____ DATE _____

NY GATEWAY CONNECTIONS IMPROVEMENT PROJECT TO THE US PEACE BRIDGE PLAZA COUNTY: ERIE COUNTY, NY	PIN 5760.80 PS&E DATE	BRIDGES	CULVERTS	ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED TYPICAL SECTIONS - PORTER AVE.

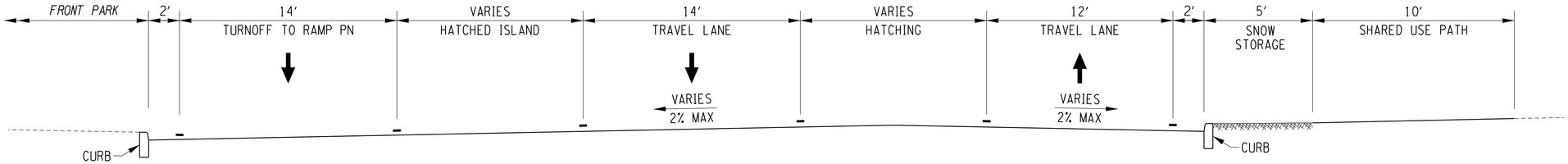
CONTRACT NUMBER D031040-01
DRAWING NO. TS-6
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION
DOCUMENT NAME:

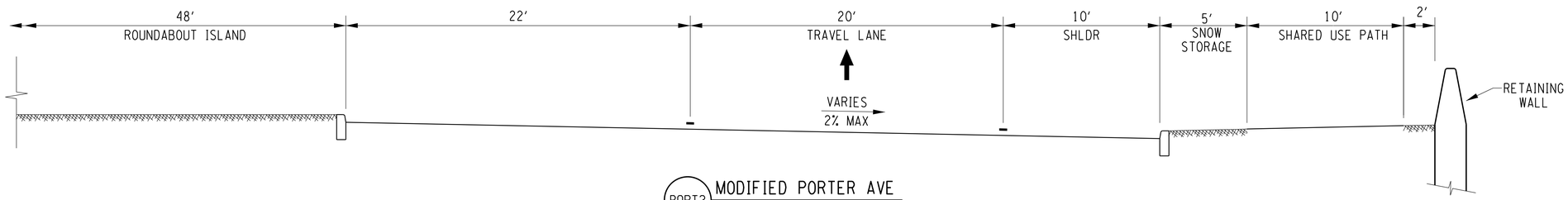
CHECKED BY
DRAFTED BY
ESTIMATED BY
DESIGNED BY
JOB MANAGER
DESIGN SUPERVISOR
FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



PORT4 MODIFIED PORTER AVE
BETWEEN ROUNDABOUT AND FOURTH ST
(OPTION B - ROUNDABOUT)



PORT4 MODIFIED PORTER AVE
@ RAMP PN
(OPTION A - SIGNAL)



PORT3 MODIFIED PORTER AVE
ROUNDABOUT - CONT
(OPTION B - ROUNDABOUT)

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

TYPICAL SECTIONS - PORTER AVE.

CONTRACT NUMBER D031040-01

DRAWING NO. TS-7

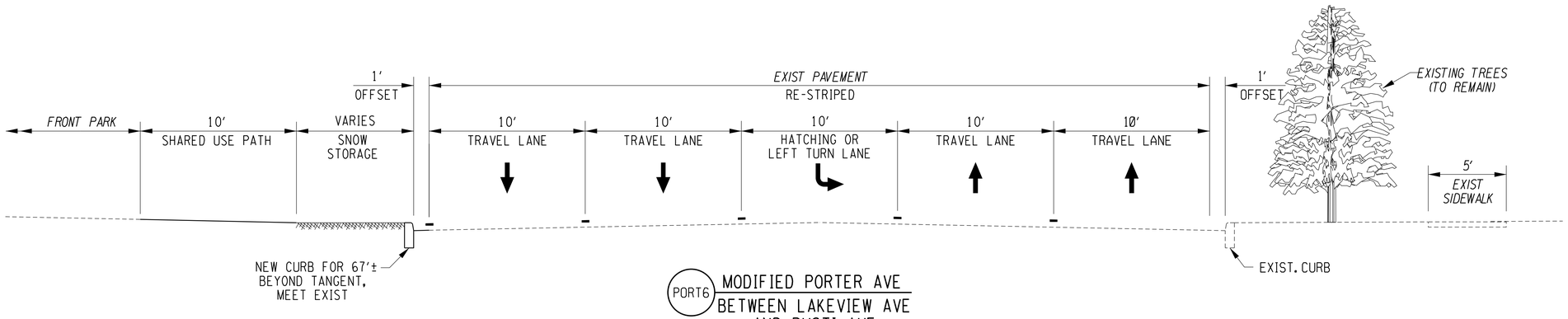
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

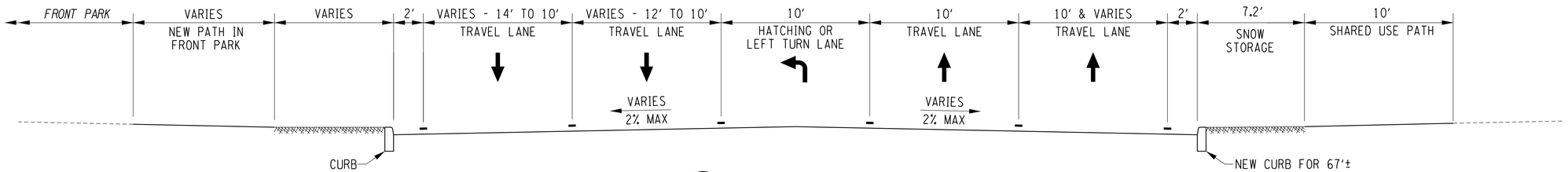
DOCUMENT NAME:

CHECKED BY
DRAFTED BY
ESTIMATED BY
DESIGNED BY
JOB MANAGER
DESIGN SUPERVISOR

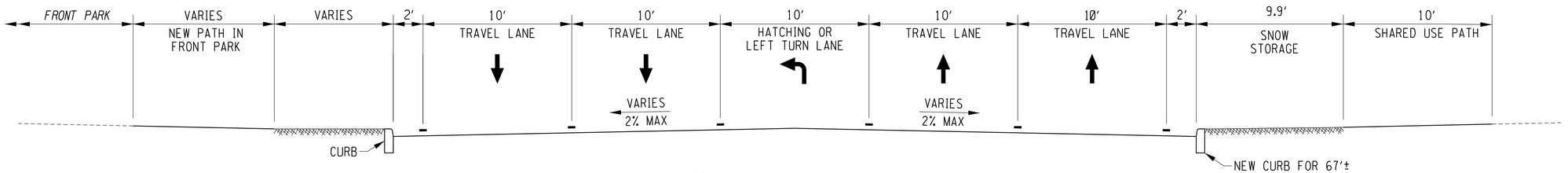
FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



PORT6 MODIFIED PORTER AVE
BETWEEN LAKEVIEW AVE
AND BUSTI AVE



PORT5 MODIFIED PORTER AVE
BETWEEN FOURTH ST
LAKEVIEW AVE
(OPTION B - ROUNDABOUT)



PORT5 MODIFIED PORTER AVE
BETWEEN FOURTH ST
LAKEVIEW AVE
(OPTION A - SIGNAL)

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

TYPICAL SECTIONS - PORTER AVE.

CONTRACT NUMBER D031040-01

DRAWING NO. TS-8

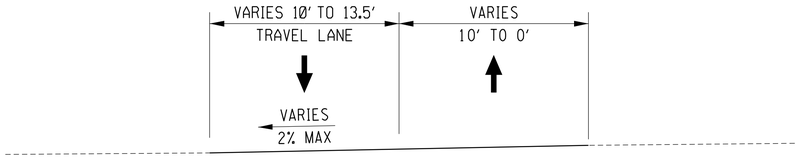
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

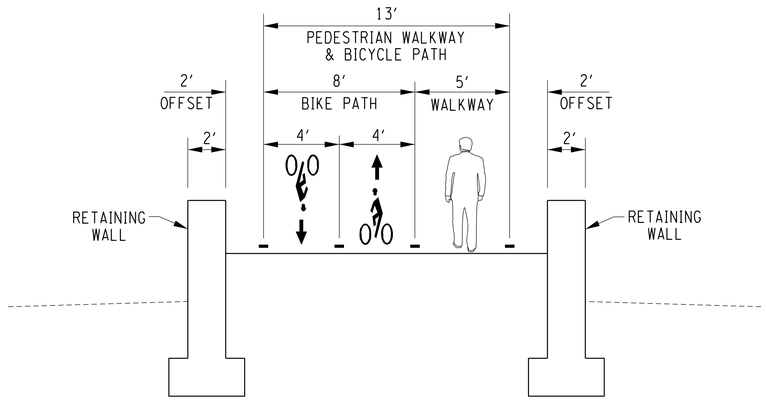
DOCUMENT NAME:

DESIGN SUPERVISOR ____ JOB MANAGER ____ DESIGNED BY ____ DRAFTED BY ____ ESTIMATED BY ____ CHECKED BY ____

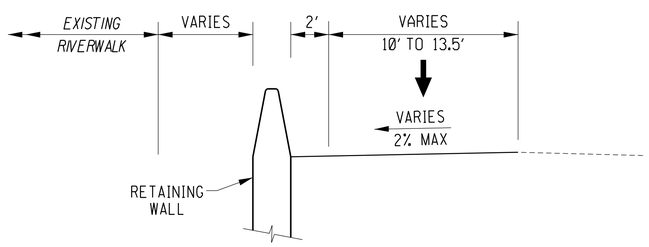
FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



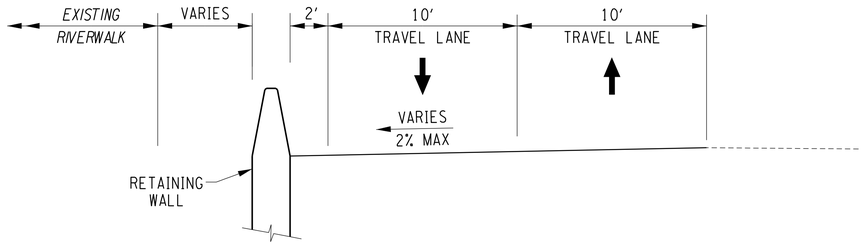
AC3 MODIFIED PUMP STA. ACCESS RD.
@ END OF NEW CONSTRUCTION



ST1 SHORELINE TRAIL
@ BEGINNING



AC1 MODIFIED PUMP STA. ACCESS RD.
BEFORE TURNOFF FROM RAMP SD



AC2 MODIFIED PUMP STA. ACCESS RD.
AFTER TURNOFF FROM RAMP SD

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

TYPICAL SECTIONS -
PUMP STA. ACCESS RD.
AND SHORELINE TRAIL

CONTRACT NUMBER
D031040-01

DRAWING NO. TS-9

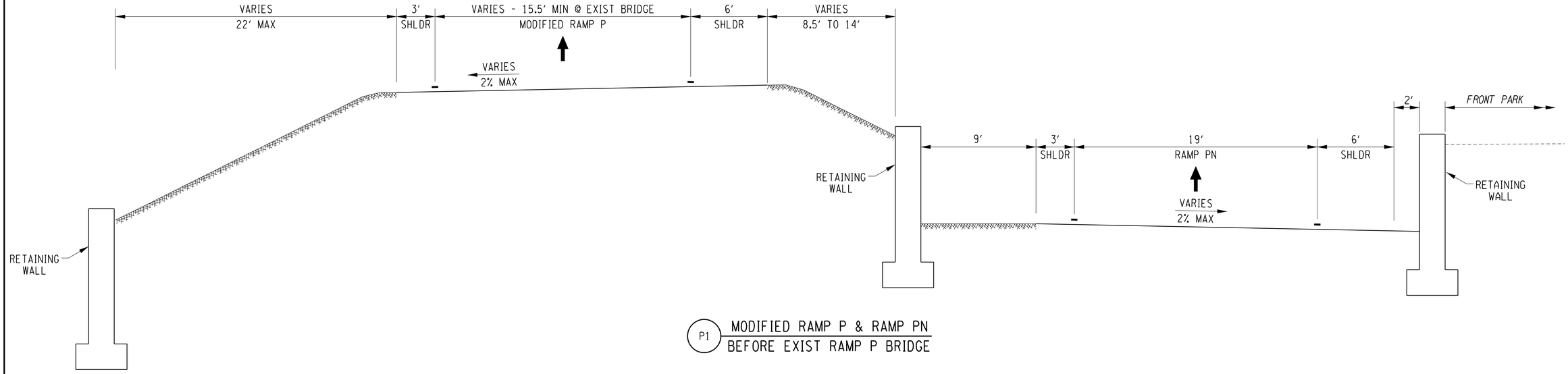
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

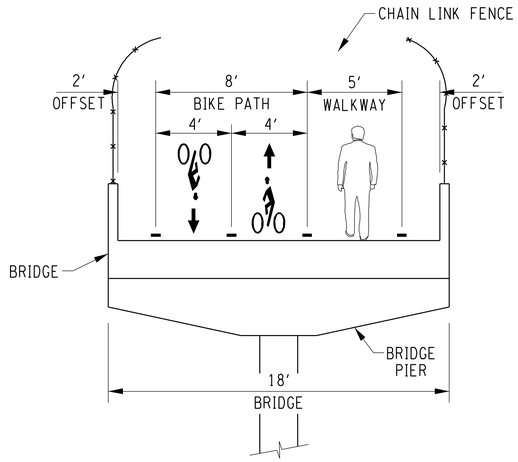
DOCUMENT NAME:

DESIGN SUPERVISOR ____ JOB MANAGER ____ DESIGNED BY ____ DRAFTED BY ____ ESTIMATED BY ____ CHECKED BY ____

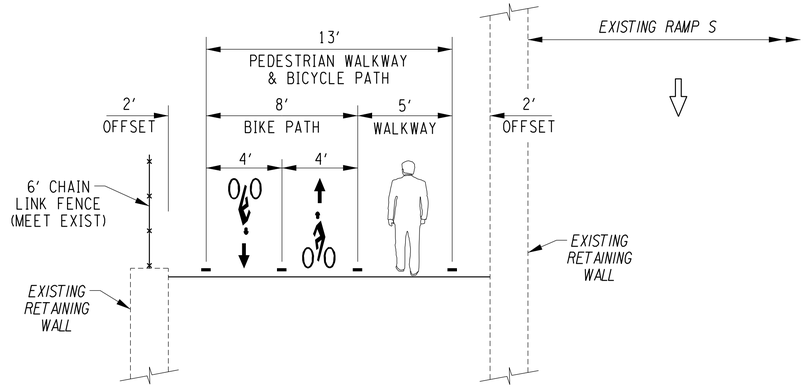
FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$



P1 MODIFIED RAMP P & RAMP PN
BEFORE EXIST RAMP P BRIDGE



ST2 SHORELINE TRAIL
BRIDGE OVER THRUWAY



ST3 SHORELINE TRAIL
@ ENDING

PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE DATE

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80
PS&E DATE

BRIDGES | CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

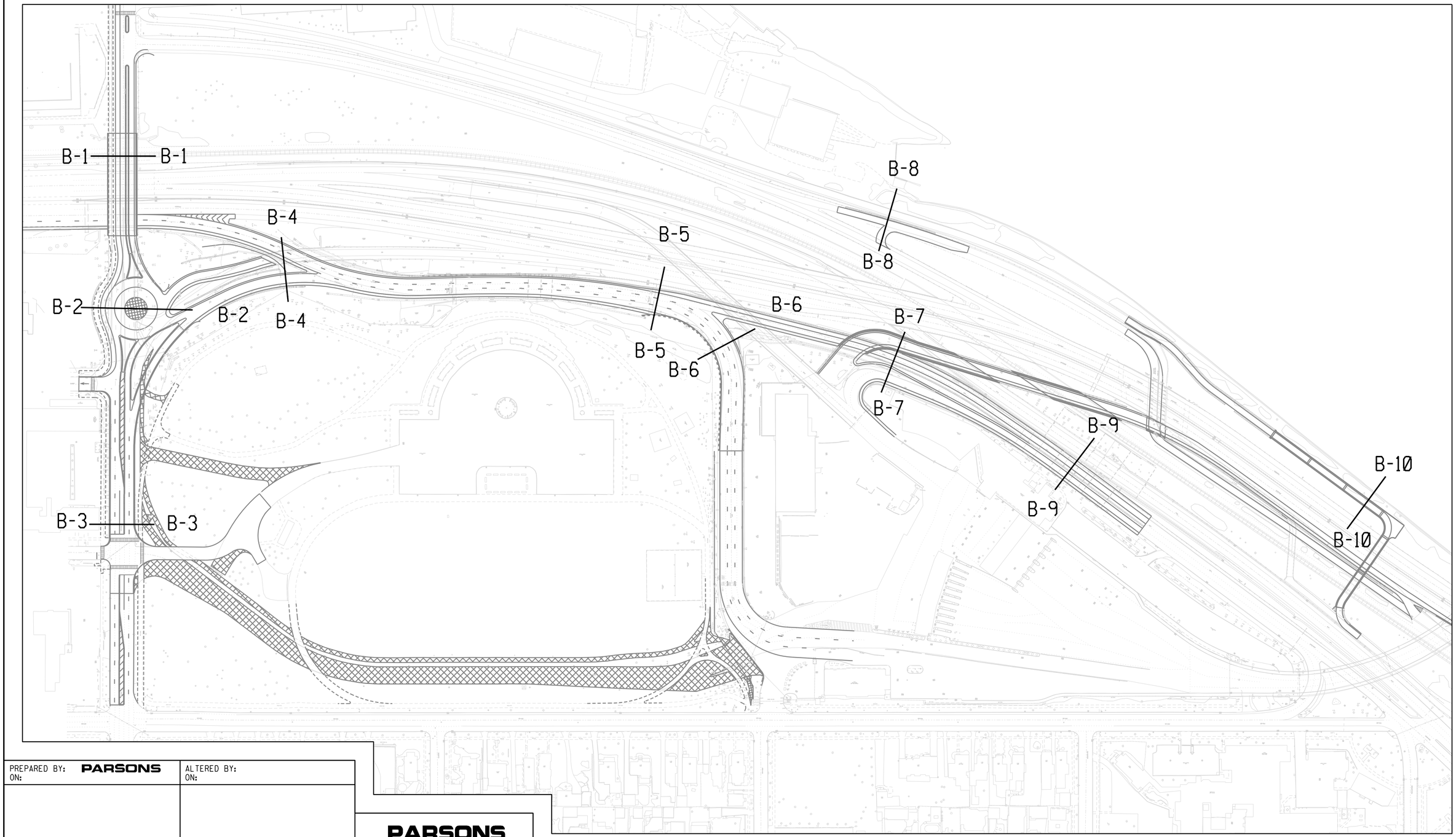
TYPICAL SECTIONS -
SHORELINE TRAIL AND
RAMPS P & PN

CONTRACT NUMBER
D031040-01
DRAWING NO. TS-10
SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION
DOCUMENT NAME:

CHECKED BY
DRAFTED BY
ESTIMATED BY
DESIGNED BY
JOB MANAGER
DESIGN SUPERVISOR
FILE NAME = $FILE$
DATE/TIME = $DATE$ $TIME$
USER = $USERNAME$

6. Cross Sections at Critical Locations



PREPARED BY: PARSONS ON:	ALTERED BY: ON:

PARSONS

AS BUILT REVISIONS
DESCRIPTION OF WORK:

SIGNATURE _____ DATE _____

NY GATEWAY CONNECTIONS
IMPROVEMENT PROJECT TO THE
US PEACE BRIDGE PLAZA

COUNTY: ERIE COUNTY, NY

PIN 5760.80

PS&E DATE

BRIDGES

CULVERTS

ALL DIMENSIONS IN Ft UNLESS OTHERWISE NOTED

CROSS-SECTION
KEY PLAN

CONTRACT NUMBER
D031040-01

DRAWING NO.

SHEET NO.

NEW YORK STATE DEPARTMENT OF TRANSPORTATION REGION

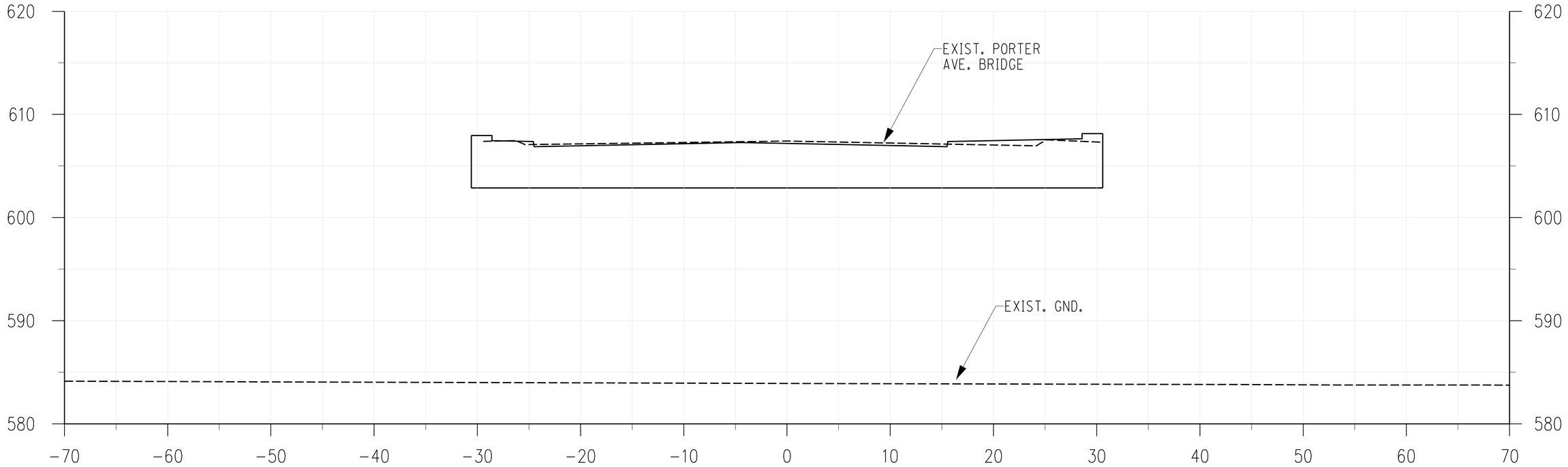
DOCUMENT NAME:

CHECKED BY
DRAFTED BY
ESTIMATED BY
CHECKED BY
DESIGNED BY
JOB MANAGER
DESIGN SUPERVISOR

FILE NAME • $FILE$
DATE/TIME • $DATE$ $TIME$
USER • $USERNAME$

P.I.N.
CONTRACT NO.
ALIGNMENT:

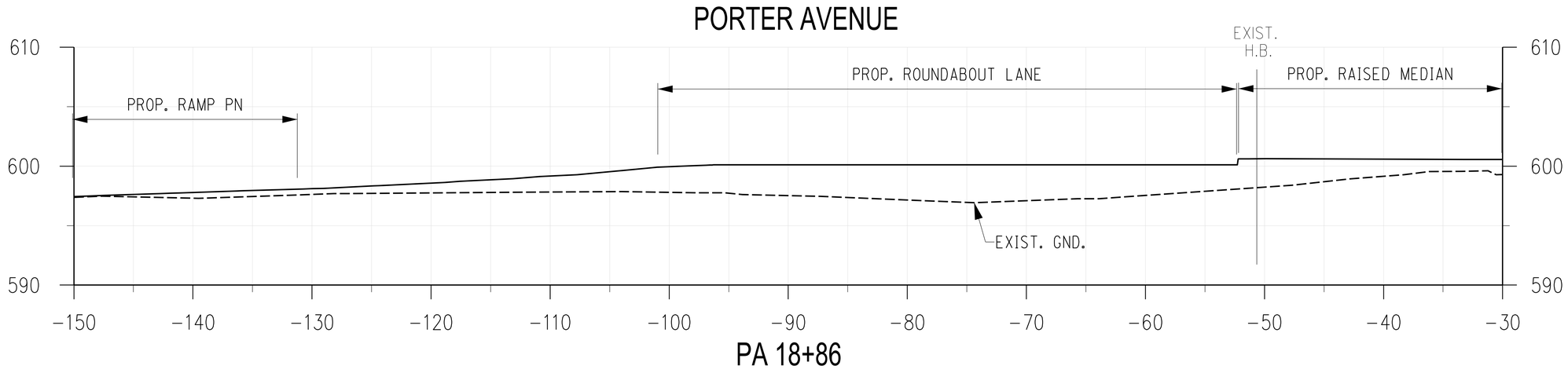
PORTER AVENUE



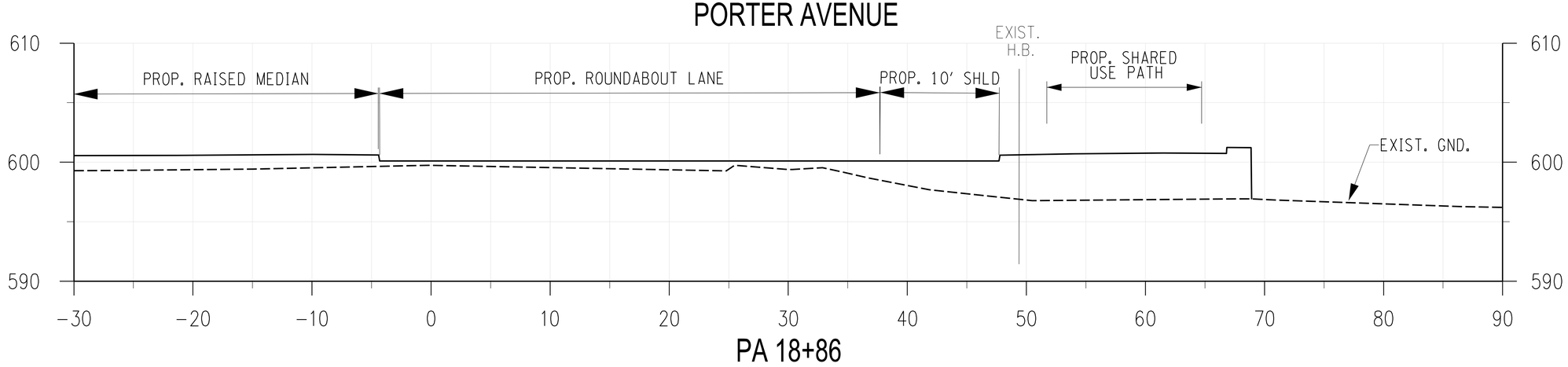
PA 15+59

B-1

FILE NAME =
DATE/TIME = DGN$SYTIME@I23456
USER = DGN$USERNAME



B-2 (LEFT)



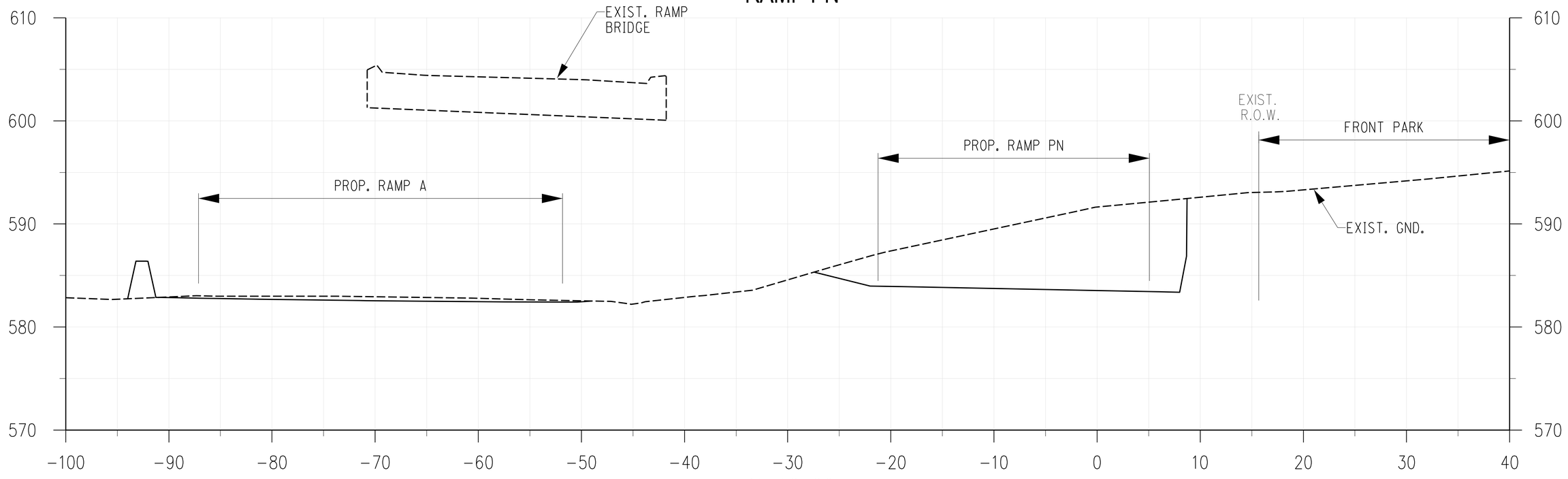
B-2 (RIGHT)

P.I.N.
CONTRACT NO.
ALIGNMENT:

FILE NAME = DGN$SYTIME@123456
DATE/TIME = DGN$USERNAME
USER = DGN$USERNAME

P.I.N.
CONTRACT NO.
ALIGNMENT:

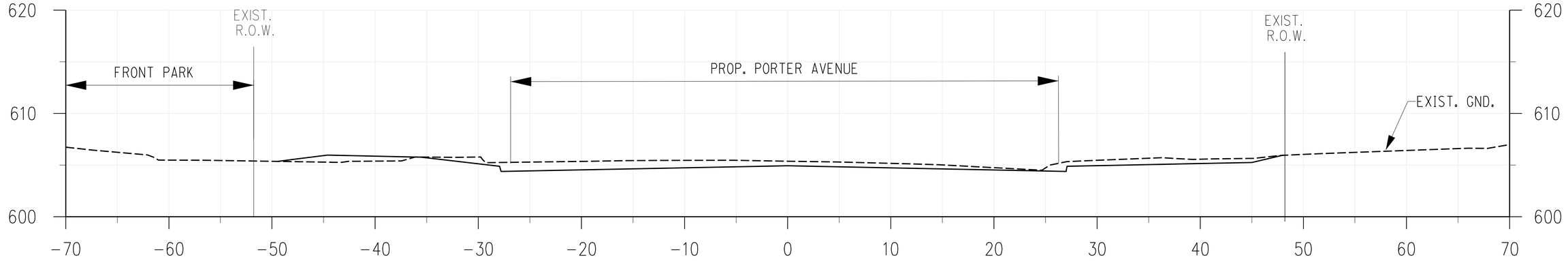
RAMP PN



PN 16+90

B-4

PORTER AVENUE



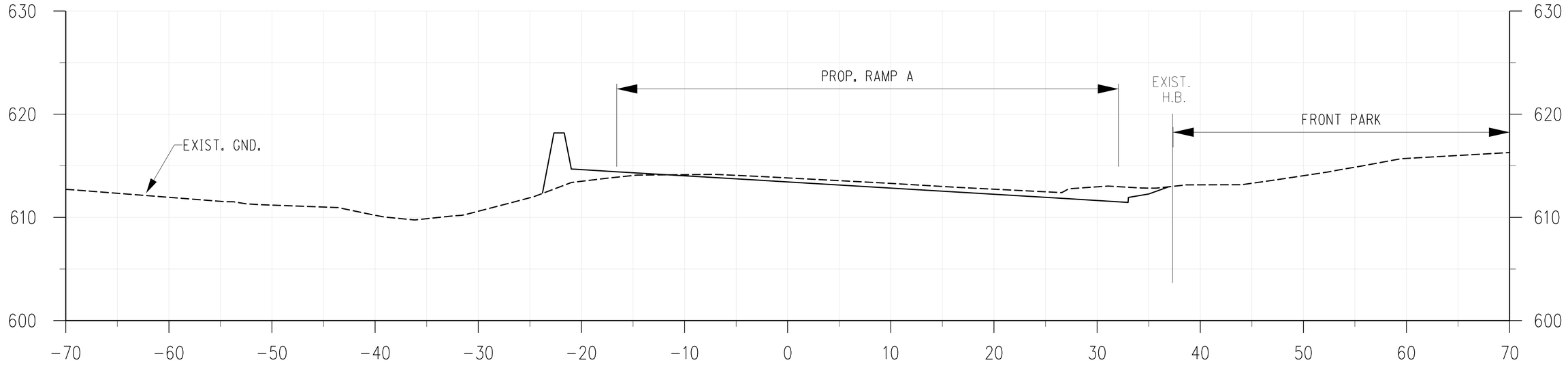
PA 23+50

B-3

FILE NAME =
DATE/TIME = DGN$SYTIME@123456
USER = DGN$USERNAME

P.I.N.
CONTRACT NO.
ALIGNMENT:

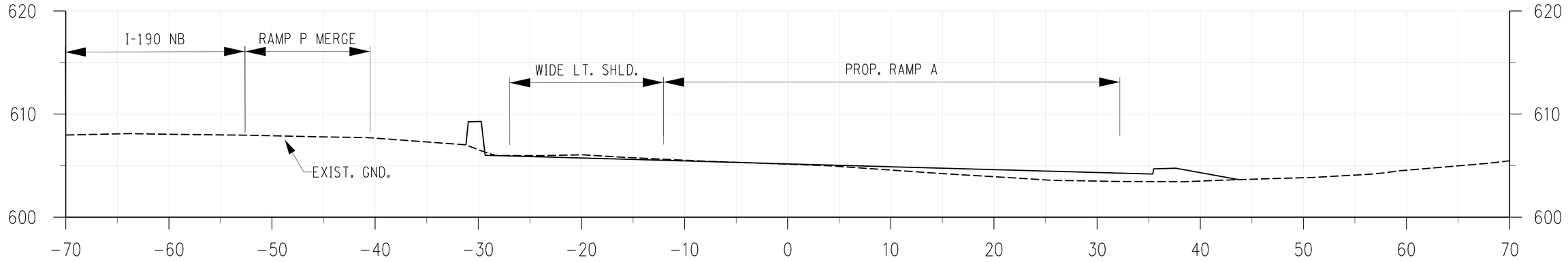
RAMP A



A 35+14

B-6

RAMP A



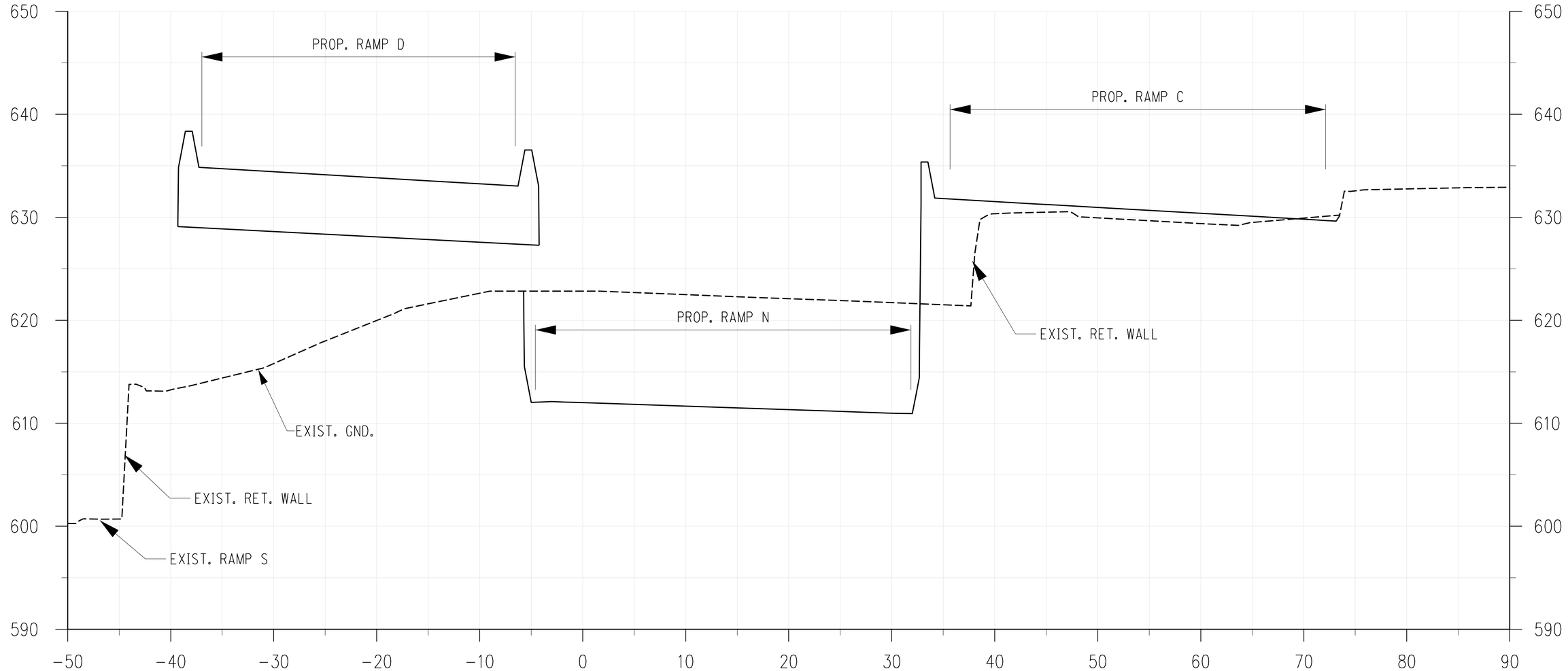
A 33+30

B-5

FILE NAME =
DATE/TIME = DGN$SYTIME@123456
USER = DGN$USERNAME

P.I.N.
CONTRACT NO.
ALIGNMENT:

RAMP N



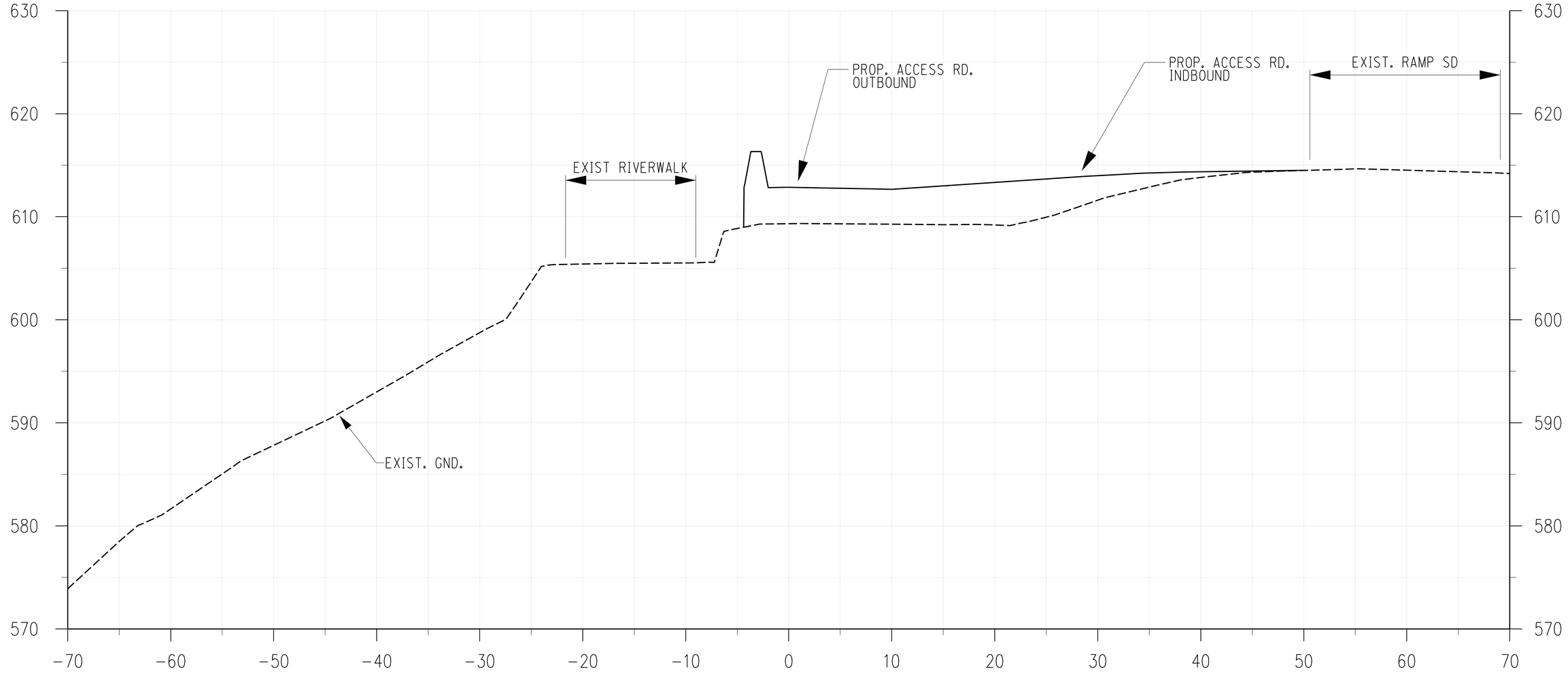
N 17+48

B-7

FILE NAME =
DATE/TIME = DGN$SYTIME0123456
USER = DGN$USERNAME

P.I.N.
CONTRACT NO.
ALIGNMENT:

ACCESS ROAD OUTBOUND



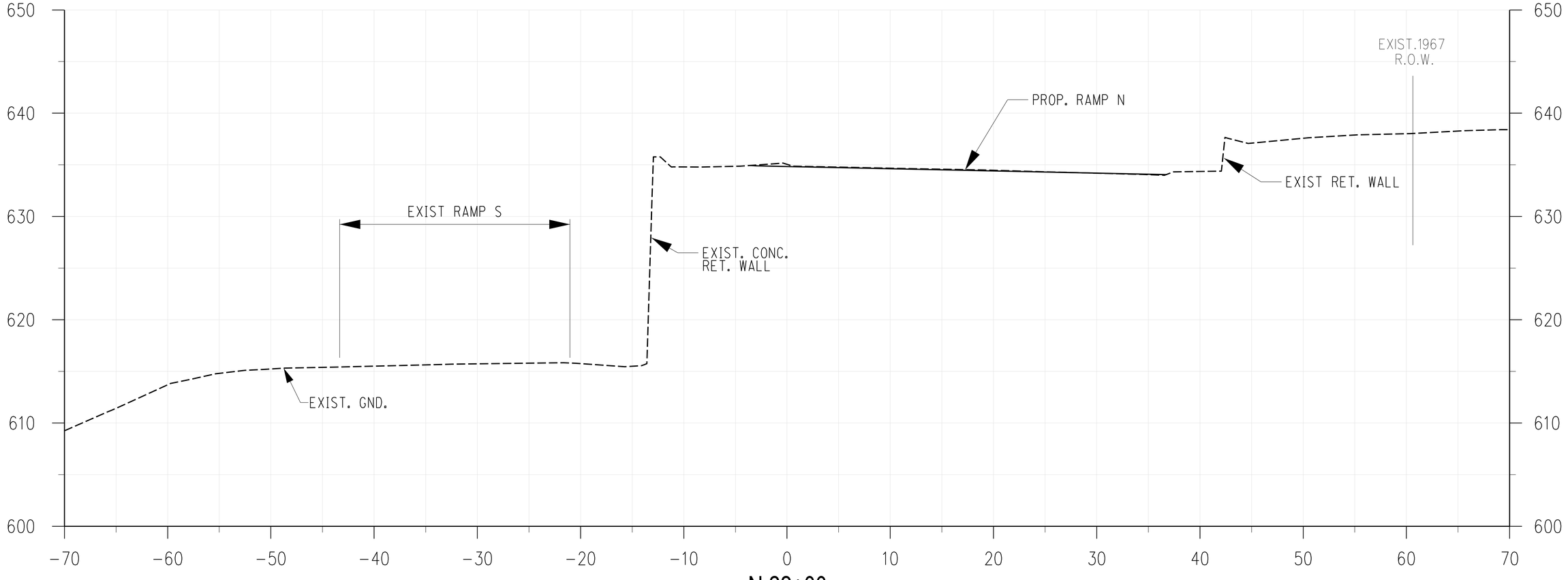
ARO 11+44

B-8

FILE NAME =
DATE/TIME = DGN$SYTIME0123456
USER = DGN$USERNAME

P.I.N.
CONTRACT NO.
ALIGNMENT:

RAMP N



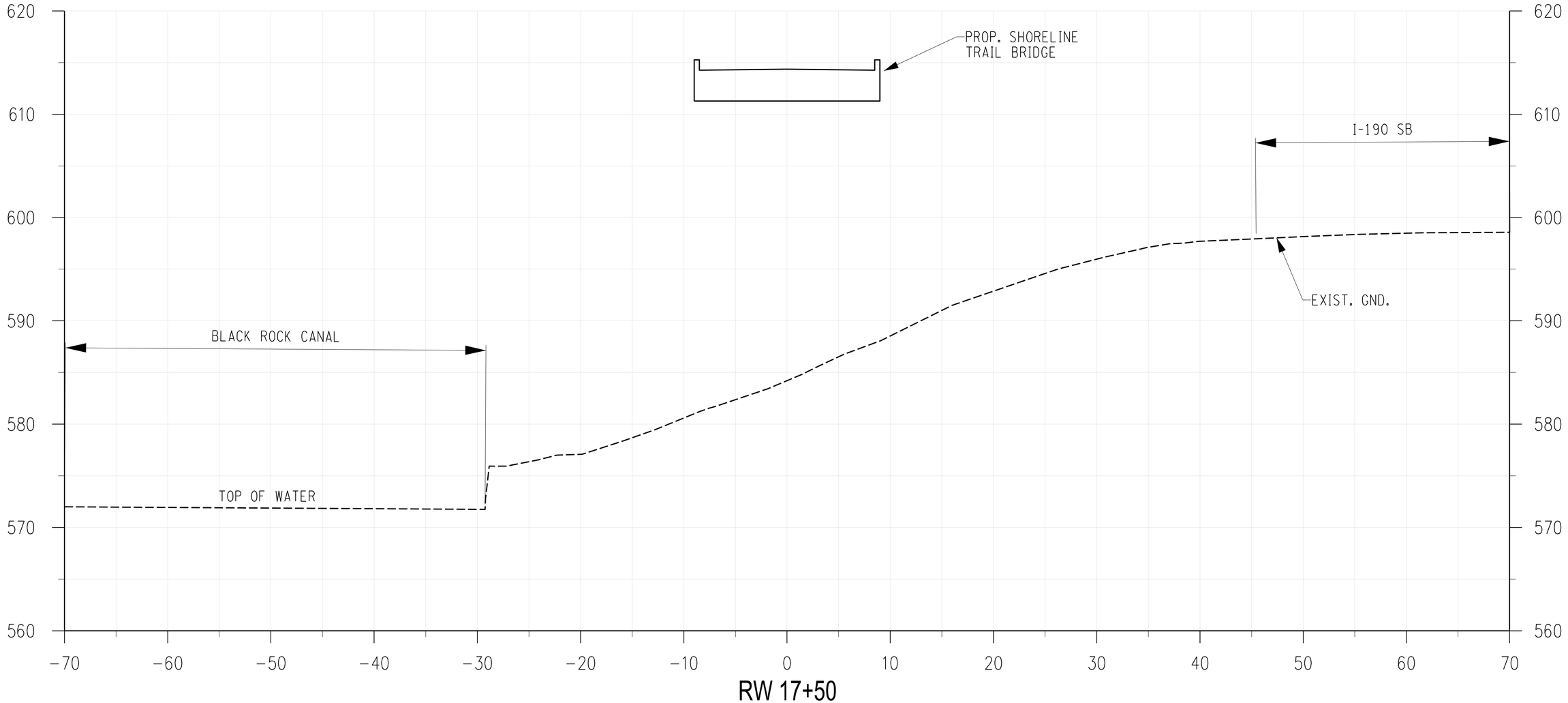
N 22+00

B-9

FILE NAME =
DATE/TIME = DGN$SYTIME0123456
USER = DGN$USERNAME

P.I.N.
CONTRACT NO.
ALIGNMENT:

SHORELINE TRAIL



RW 17+50

B-10

FILE NAME =
DATE/TIME = DGN$SYTIME@123456
USER = DGN$USERNAME

7. Non-Standard Feature Justification

NON-STANDARD FEATURE JUSTIFICATION
(in accordance with HDM §2.8)

PIN:	5760.80	NHS (Y/N):	Yes
Route No. & Name:	Ramp P	Functional Class:	Urban Principal Arterial Interstate
Project Type:	Reconstruction	Design Class:	Ramp (Diagonal)
% Trucks:	3%	Terrain:	Rolling
ADT:	8000	Truck Access/Qualifying Hwy.	Qualifying Highway

a. - Description of Non-Standard Feature

Type of Feature (e.g., horizontal curve radius):	Level of Service (LOS)		
Location:	From the approach to Ramp P to I-190 NB.		
Standard Value:	C	Design Speed:	35 mph
Existing Value:	E	Advisory Speed:	Not posted ≤ 30 mph
Proposed Value:	F	Advisory Speed:	35 mph

b. - Accident Analysis

Current Accident Rate:	1.07 Acc/mvm
Statewide Rate:	1.19 Acc/mvm
Is the non-standard feature a contributing factor?	No
Anticipated Accident Rates, Severity, and Costs:	The accident rates identified are for I-190NB north of the ramp location. These rates do not have any bearing on the LOS for Ramp P.

c. - Cost Estimates

Cost to Fully Meet Standards:	Cost to add capacity to Ramp P as part of the proposed reconstruction has not been determined. Additional capacity could not be achieved due to existing physical and right-of-way constraints.
Cost(s) For Incremental Improvements:	None

d. - Mitigation (e.g., increased superelevation and speed change lane length for a non-standard ramp radius):

None.

e. - Compatibility with Adjacent Segments & Future Plans:

This project consists of minor improvements along the Porter Avenue corridor to facilitate intersection improvements at the I-190 NB entrance ramp and the Front Park entrance intersections. Slight alignment modifications for ramp P are required to meet the geometric constraints of the project. The LOS for Ramp P is directly linked to the capacity of the I-190.

f. - Other Factors (e.g., Social, Economic & Environmental):

Any modifications to Ramp P to improve the level of service would require additional ROW be taken in the park.

g. - Proposed Treatment (i.e., Recommendation):

It is recommended that no action be taken to increase the LOS of Ramp P and Ramp P be constructed as proposed.

NON-STANDARD FEATURE JUSTIFICATION
(in accordance with HDM §2.8)

PIN:	5760.80	NHS (Y/N):	Yes
Route No. & Name:	I-190	Functional Class:	Urban Principal Arterial Other
Project Type:	Reconstruction	Design Class:	Interstate
% Trucks:	8%	Terrain:	Rolling
ADT:	111200	Truck Access/Qualifying Hwy.	Qualifying Highway

a. - Description of Non-Standard Feature

Type of Feature (e.g., horizontal curve radius):	Vertical Clearance		
Location:	Underneath Ramp B (BIN 1063110) along the I-190 NB travel lanes.		
Standard Value:	16.00 ft. (min.)	Design Speed:	60 mph
Existing Value:	14.53 ft.	Advisory Speed:	60 mph
Proposed Value:	14.53 ft.	Advisory Speed:	60 mph

b. - Accident Analysis

Current Accident Rate:	1.07 (NB), 0.74 (SB) Acc/mvm
Statewide Rate:	1.19 (NB/SB) Acc/mvm
Is the non-standard feature a contributing factor?	No
Anticipated Accident Rates, Severity, and Costs:	The accident rates identified are for I-190 north of Interchange 9 location. These rates do not have any bearing on the non-standard vertical clearance of Ramp B over the I-190.

c. - Cost Estimates

Cost to Fully Meet Standards:	Modification to existing structure is not required and therefore the cost to perform the work was not computed.
Cost(s) For Incremental Improvements:	None

d. - Mitigation (e.g., increased superelevation and speed change lane length for a non-standard ramp radius):

None.

e. - Compatibility with Adjacent Segments & Future Plans:

None.

f. - Other Factors (e.g., Social, Economic & Environmental):

None.

g. - Proposed Treatment (i.e., Recommendation):

Ramp B to remain as-is. Ramp B (BIN 1063110) is on the approved structures list found in Appendix 2C of the NYSDOT Bridge Manual. Structures contained in this table can retain existing vertical clearance as agreed by the FHWA on December 12, 1991.

NON-STANDARD FEATURE JUSTIFICATION
(in accordance with HDM §2.8)

PIN:	5760.80	NHS (Y/N):	Yes
Route No. & Name:	I-190	Functional Class:	Urban Principal Arterial Interstate
Project Type:	Reconstruction	Design Class:	Interstate
% Trucks:	8%	Terrain:	Rolling
ADT:	111200	Truck Access/Qualifying Hwy.	Qualifying Highway

a.- Description of Non-Standard Feature

Type of Feature (e.g., horizontal curve radius):	Vertical Clearance		
Location:	Under I-190 bridge BIN 551259 over CSX.		
Standard Value:	22.0 ft.	Design Speed:	60 mph
Existing Value:	17.25 ft.	Advisory Speed:	60 mph
Proposed Value:	17.25	Advisory Speed:	60 mph

b. - Accident Analysis

Current Accident Rate:	1.07 Acc/mvm (I-190 NB) 0.74 Acc/mvm (I-190 SB)
Statewide Rate:	1.19 Acc/mvm (I-190 NB/SB)
Is the non-standard feature a contributing factor?	No
Anticipated Accident Rates, Severity, and Costs:	The accident rates identified are for I-190. These rates do not have any bearing on the non-standard clearance under CSX.

c. - Cost Estimates

Cost to Fully Meet Standards:	$4.5 M (structure only)
Cost(s) For Incremental Improvements:	None.

d. - Mitigation (e.g., increased superelevation and speed change lane length for a non-standard ramp radius):

This structure is located within the project corridor but is not slated for rehabilitation/replacement under this contract.

e. - Compatibility with Adjacent Segments & Future Plans:

In order to meet the clearance requirements over CSX, the bridge would have to be raised approximately 5 ft. thus requiring extensive approach work on the I-190 mainline including the replacement of the Ramp B bridge and the I-190 over Pump Station Access Road bridge. This additional associated work would increase the construction costs substantially and would adversely affect the operations of the Peace Bridge during construction.

f. - Other Factors (e.g., Social, Economic & Environmental):

Both Front Park and Porter Avenue are listed in the National Register as contributing resources of the Olmsted Parks and Parkways Thematic Resources and are also elements of the NRHP listed Delaware Park Front Park System (90NR01212). Increasing the clearance of Ramp B would adversely impact this environmental resource.

g. - Proposed Treatment (i.e., Recommendation):

It is recommended that the existing I-190 over CSX remain as-is. Replacement of this structure shall not be included in this construction project and has already received a clearance waiver/variance from CSX.

NON-STANDARD FEATURE JUSTIFICATION
(in accordance with HDM §2.8)

PIN:	5760.80	NHS (Y/N):	Yes
Route No. & Name:	Ramp D	Functional Class:	Urban Principal Arterial Other
Project Type:	New construction	Design Class:	Ramp (direct connection)
% Trucks:	NA	Terrain:	Rolling
ADT:	NA	Truck Access/Qualifying Hwy.	Qualifying Highway

a. - Description of Non-Standard Feature

Type of Feature (e.g., horizontal curve radius):	Vertical Clearance		
Location:	Under Ramp D over CSX		
Standard Value:	22.00 ft.	Design Speed:	40mph
Existing Value:	N/A	Advisory Speed:	NA
Proposed Value:	18 ft.	Advisory Speed:	40 mph

b. - Accident Analysis

Current Accident Rate:	N/A
Statewide Rate:	N/A
Is the non-standard feature a contributing factor?	No
Anticipated Accident Rates, Severity, and Costs:	This non-standard design feature does not affect the traveling public.

c. - Cost Estimates

Cost to Fully Meet Standards:	$2.0 M (ramp adjustments only)
Cost(s) For Incremental Improvements:	None.

d. - Mitigation (e.g., increased superelevation and speed change lane length for a non-standard ramp radius):

The Ramp D bridge is currently slated to be constructed with a low chord elevation that is consistent with the adjacent bridge structures along this CSX corridor.

e. - Compatibility with Adjacent Segments & Future Plans:

The proposed Ramp D bridge will not further restrict the type and size of commerce that currently utilizes this segment of CSX through Buffalo. The clearance exceeds the limited clearance on the I-190 overpass bridge (BIN 5512589) that is located within ½ mile of this structure.

f. - Other Factors (e.g., Social, Economic & Environmental):

To meet current vertical clearance requirements, the low chord elevation would need to be raised approximately 5 ft. and would require extensive adjustments to the I-190 mainline including the replacement of two Mainline structures and possible Peace Bridge departure adjustments.

g. - Proposed Treatment (i.e., Recommendation):

It is recommended that the new bridge structure over CSX provide a vertical clearance that meets or exceeds the clearance of the surrounding bridges along this segment of CSX. This recommendation requires a clearance waiver/variance from CSX.

NON-STANDARD FEATURE JUSTIFICATION
(in accordance with HDM §2.8)

PIN:	5760.80	NHS (Y/N):	Yes
Route No. & Name:	I-190	Functional Class:	Urban Principal Arterial Interstate
Project Type:	Reconstruction	Design Class:	Interstate
% Trucks:	8%	Terrain:	Rolling
ADT:	111200	Truck Access/Qualifying Hwy.	Qualifying Highway

a. - Description of Non-Standard Feature

Type of Feature (e.g., horizontal curve radius):	Level of Service (LOS)		
Location:	I-190 NB and SB		
Standard Value:	D (min.)	Design Speed:	60 mph
Existing Value:	D (NB), D (SB)	Advisory Speed:	60 mph
Proposed Value:	F (NB), F (SB)	Advisory Speed:	60 mph

b. - Accident Analysis

Current Accident Rate:	1.26/1.07Acc/mvm I-190 NB S/N of Interchange 9 0.83/0.74 Acc/mvm I-190 SB S/N of Interchange 9
Statewide Rate:	1.29/1.19 Acc/mvm I-190 NB/SB, S/N of Interchange 9
Is the non-standard feature a contributing factor?	No
Anticipated Accident Rates, Severity, and Costs:	The accident rates identified are for I-190 NB and SB. The anticipated accident rate and severity are not expected to change.

c. - Cost Estimates

Cost to Fully Meet Standards:	Adding capacity to I-190 is beyond the scope of work and therefore the costs associated with the work have not been computed.
Cost(s) For Incremental Improvements:	None.

d. - Mitigation (e.g., increased superelevation and speed change lane length for a non-standard ramp radius):

None.

e. - Compatibility with Adjacent Segments & Future Plans:

Feature is consistent with other nearby sections of this interstate and is not expected to affect future transportation plans.

f. - Other Factors (e.g., Social, Economic & Environmental):

Reconstruction of the I-190 travel-way is not included in the scope of this project. The existing facility is in a narrow corridor and pavement widening options are limited by adjacent features.

g. - Proposed Treatment (i.e., Recommendation):

I-190 to remain as-is.

NON-STANDARD FEATURE JUSTIFICATION
(in accordance with HDM §2.8)

PIN:	5760.80	NHS (Y/N):	Yes
Route No. & Name:	I-190	Functional Class:	Urban Principal Arterial Interstate
Project Type:	Reconstruction	Design Class:	Interstate
% Trucks:	8%	Terrain:	Rolling
ADT:	111200	Truck Access/Qualifying Hwy.	Qualifying Highway

a. - Description of Non-Standard Feature

Type of Feature (e.g., horizontal curve radius):	Horizontal Clearance		
Location:	I-190 NB adjacent to Ramp P and along I-190 NB/SB		
Standard Value:	15 ft. w/o barrier. Greater of shoulder width or 4 ft. w/ barrier.	Design Speed:	60 mph
Existing Value:	10.5 ft. w/o barrier ≥ 3.5 ft. w/ barrier	Advisory Speed:	60 mph
Proposed Value:	10.5 ft. w/o barrier ≥ 3.5 ft. w/ barrier	Advisory Speed:	60 mph

b. - Accident Analysis

Current Accident Rate:	1.26/1.07Acc/mvm I-190 NB S/N of Interchange 9 0.83/0.74 Acc/mvm I-190 SB S/N of Interchange 9
Statewide Rate:	1.29/1.19 Acc/mvm I-190 NB/SB, S/N of Interchange 9
Is the non-standard feature a contributing factor?	No
Anticipated Accident Rates, Severity, and Costs:	The accident rates identified are for I-190 NB and SB. The anticipated accident rate and severity are not expected to change.

c. - Cost Estimates

Cost to Fully Meet Standards:	Adding clearances to I-190 is not included in the scope of work and therefore the costs associated with the work have not been computed.
Cost(s) For Incremental Improvements:	None.

d. - Mitigation (e.g., increased superelevation and speed change lane length for a non-standard ramp radius):

None.

e. - Compatibility with Adjacent Segments & Future Plans:

Feature is consistent with other nearby sections of this interstate and is not expected to affect future transportation plans.

f. - Other Factors (e.g., Social, Economic & Environmental):

Reconstruction of the I-190 travel-way is not included in the scope of this project. The existing facility is in a narrow corridor and pavement widening options are limited by adjacent features.

g. - Proposed Treatment (i.e., Recommendation):

I-190 to remain as-is.

NON-STANDARD FEATURE JUSTIFICATION
(in accordance with HDM §2.8)

PIN:	5760.80	NHS (Y/N):	Yes
Route No. & Name:	I-190	Functional Class:	Urban Principal Arterial Interstate
Project Type:	Reconstruction	Design Class:	Interstate
% Trucks:	8%	Terrain:	Rolling
ADT:	111200	Truck Access/Qualifying Hwy.	Qualifying Highway

a. - Description of Non-Standard Feature

Type of Feature (e.g., horizontal curve radius):	Shoulder Width Mainline and Shoulder Width on bridges (i.e. Bridge width)		
Location:	Right and Left shoulders along I-190 NB and SB (inc. shoulder on bridges)		
Standard Value:	LT-4.0 ft., RT-10.0 ft.	Design Speed:	60 mph
Existing Value:	LT-Varies: 2.6-4.3 ft. RT-Varies: 7.9-10.5 ft.	Advisory Speed:	60 mph
Proposed Value:	LT-Varies: 2.6-4.3 ft. RT-Varies: 7.9-10.5 ft.	Advisory Speed:	60 mph

b. - Accident Analysis

Current Accident Rate:	1.26/1.07Acc/mvm I-190 NB S/N of Interchange 9 0.83/0.74 Acc/mvm I-190 SB S/N of Interchange 9
Statewide Rate:	1.29/1.19 Acc/mvm I-190 NB/SB, S/N of Interchange 9
Is the non-standard feature a contributing factor?	No
Anticipated Accident Rates, Severity, and Costs:	The accident rates identified are for I-190 NB and SB of Interchange 9. The anticipated accident rate and severity are not expected to change.

c. - Cost Estimates

Cost to Fully Meet Standards:	Widening the shoulders is not included in the scope of the project and therefore costs associated with the work have not been determined.
Cost(s) For Incremental Improvements:	The benefit is limited.

d. - Mitigation (e.g., increased superelevation and speed change lane length for a non-standard ramp radius):

None.

e. - Compatibility with Adjacent Segments & Future Plans:

Feature is consistent with other nearby sections of this interstate and is not expected to affect future transportation plans.

f. - Other Factors (e.g., Social, Economic & Environmental):

Reconstruction of the I-190 travel-way is not included in the scope of this project. The existing facility is in a narrow corridor and pavement widening options are limited by adjacent features.

g. - Proposed Treatment (i.e., Recommendation):

I-190 to remain as-is.

NON-STANDARD FEATURE JUSTIFICATION
(in accordance with HDM §2.8)

PIN:	5760.80	NHS (Y/N):	No
Route No. & Name:	Ramp N	Functional Class:	Urban Principal Arterial Other
Project Type:	Reconstruction	Design Class:	Ramp (Direct Connection)
% Trucks:	14%	Terrain:	Rolling
ADT:	22800	Truck Access/Qualifying Hwy.	Qualifying Highway

a. - Description of Non-Standard Feature

Type of Feature (e.g., horizontal curve radius):	Vertical Clearance		
Location:	Underneath Ramp P (BIN 5512570)		
Standard Value:	16.00 ft. (min.)	Design Speed:	35 mph
Existing Value:	15.42 ft.	Advisory Speed:	35 mph
Proposed Value:	15.42 ft.	Advisory Speed:	35 mph

b. - Accident Analysis

Current Accident Rate:	1.26 Acc/mvm
Statewide Rate:	1.29 Acc/mvm
Is the non-standard feature a contributing factor?	No
Anticipated Accident Rates, Severity, and Costs:	The accident rates identified are for I-190NB south of the Ramp P location. These rates do not have any bearing on the non-standard vertical clearance of Ramp P over Ramp N.

c. - Cost Estimates

Cost to Fully Meet Standards:	Modification to existing structure is not required and therefore the cost to perform the work was not computed.
Cost(s) For Incremental Improvements:	None.

d. - Mitigation (e.g., increased superelevation and speed change lane length for a non-standard ramp radius):

None.

e. - Compatibility with Adjacent Segments & Future Plans:

The Porter Ave. bridge over the I-190 located immediately before this structure has a vertical clearance ≥ 16’-0”.

f. - Other Factors (e.g., Social, Economic & Environmental):

Raising the Ramp P profile to increase the vertical clearance may result in impacts to Front Park.

g. - Proposed Treatment (i.e., Recommendation):

Ramp P to remain as-is. Ramp P (BIN 5512570) is on the approved structures list found in Appendix 2C of the NYSDOT Bridge Manual. Structures contained in this table can retain existing vertical clearance as agreed by the FHWA on December 12, 1991.

NON-STANDARD FEATURE JUSTIFICATION
(in accordance with HDM §2.8)

PIN:	5760.80	NHS (Y/N):	No
Route No. & Name:	Porter Ave.	Functional Class:	Urban Principal Arterial Other
Project Type:	Reconstruction	Design Class:	Urban Arterial
% Trucks:	3%	Terrain:	Rolling
ADT:	16000	Truck Access/Qualifying Hwy.	Within 1 mile of Qualifying Highway

a. - Description of Non-Standard Feature

Type of Feature (e.g., horizontal curve radius):	Lane Widths (Travel and Turn Lanes)		
Location:	From the east approach of the I-190 overpass to the Busti Avenue intersection.		
Standard Value:	12 ft. (Travel lane) 11 ft. (Turn lane)	Design Speed:	30 mph
Existing Value:	10 ft. (Travel & Turn lane)	Advisory Speed:	30 mph
Proposed Value:	10 ft. (Travel & Turn lane)	Advisory Speed:	30 mph

b. - Accident Analysis

Current Accident Rate:	16.44 Acc/mvm
Statewide Rate:	4.86 Acc/mvm
Is the non-standard feature a contributing factor?	No
Anticipated Accident Rates, Severity, and Costs:	Sideswipes contributed to only 1% of the total number of accidents on Porter Avenue and

c. - Cost Estimates

Cost to Fully Meet Standards:	$450,000
Cost(s) For Incremental Improvements:	None

d. - Mitigation (e.g., increased superelevation and speed change lane length for a non-standard ramp radius):

Maintain pavement widths as they exist today. This portion of Porter Avenue lies within a recently completed project that was facilitated by the City of Buffalo. This project consisted of curb replacement, pavement reconstruction/overlay and signal upgrades.

e. - Compatibility with Adjacent Segments & Future Plans:

This project consists of minor improvements along the Porter Avenue corridor to facilitate intersection improvements at the I-190 NB entrance ramp and the Front Park entrance intersections. The existing Porter Avenue laneage and curb lines will be maintained.

f. - Other Factors (e.g., Social, Economic & Environmental):

Both Front Park and Porter Avenue are listed in the National Register as contributing resources of the Olmsted Parks and Parkways Thematic Resources and are also elements of the NRHP listed Delaware Park Front Park System (90NR01212).
Increasing the roadway pavement width would require the relocation of the existing closed drainage system, the relocation of the above ground utilities (light poles and hydrants) and the purchase of right-of-way along the south side of Porter Avenue.

g. - Proposed Treatment (i.e., Recommendation):

It is recommended that Porter Avenue lane widths be maintained within the project corridor.

NON-STANDARD FEATURE JUSTIFICATION
(in accordance with HDM §2.8)

PIN:	5760.80	NHS (Y/N):	No
Route No. & Name:	Porter Ave.	Functional Class:	Urban Principal Arterial Other
Project Type:	Reconstruction	Design Class:	Urban Arterial
% Trucks:	3%	Terrain:	Rolling
ADT:	16000	Truck Access/Qualifying Hwy.	Within 1 mile of Qualifying Highway

a. - Description of Non-Standard Feature

Type of Feature (e.g., horizontal curve radius):	Vertical Clearance		
Location:	Under the Porter Avenue bridge (BIN 5512560) over CSX.		
Standard Value:	23.00 ft.	Design Speed:	30 mph
Existing Value:	17.89 ft.	Advisory Speed:	30 mph
Proposed Value:	17.89 ft.	Advisory Speed:	30 mph

b. - Accident Analysis

Current Accident Rate:	NA
Statewide Rate:	NA
Is the non-standard feature a contributing factor?	No
Anticipated Accident Rates, Severity, and Costs:	NA

c. - Cost Estimates

Cost to Fully Meet Standards:	$6.0 M
Cost(s) For Incremental Improvements:	None

d. - Mitigation (e.g., increased superelevation and speed change lane length for a non-standard ramp radius):

The Porter Avenue Bridge currently slated to be replaced so that the existing low chord elevation is maintained. The span over I-190 NB will be lengthen to provide adequate outside shoulder offset thus alleviating this current non-standard feature.

e. - Compatibility with Adjacent Segments & Future Plans:

The proposed Porter Avenue Bridge will not further restrict the type and size of commerce that currently utilizes this segment of CSX through Buffalo. The clearance exceeds the limited clearance on the I-190 overpass bridge (BIN 5512589) that is located approximately 1/3 mile north of this structure.

f. - Other Factors (e.g., Social, Economic & Environmental):

To meet current vertical clearance requirements, the low chord elevation will need to be raised approximately 4 ft. and would require extensive approach adjustments. Due to close proximity of the I-190 ramps, proposed Peace Bridge Ramp, and driveways, these elements would need to be reconstructed and brought up to current design standards. Since there is already limited clearance on the Ramp P over Ramp N bridge and the maximum grade required on the Peace Bridge Plaza entrance ramp (Ramp PN) to tie-in Ramp N, raising Porter Avenue through this section would require replacement of this structure.

g. - Proposed Treatment (i.e., Recommendation):

It is recommended that the replacement of the Porter Avenue overpass bridge not be raised, since this cost outweighs the benefit. This recommendation requires a clearance variance from CSX.

NON-STANDARD FEATURE JUSTIFICATION
(in accordance with HDM §2.8)

PIN:	5760.80	NHS (Y/N):	Yes
Route No. & Name:	Ramp SD	Functional Class:	Urban Principal Arterial Interstate
Project Type:	Reconstruction	Design Class:	Ramp
% Trucks:		Terrain:	Rolling
ADT:		Truck Access/Qualifying Hwy.	Qualifying Highway

a. - Description of Non-Standard Feature

Type of Feature (e.g., horizontal curve radius):	Access Control		
Location:	Ramp SD at Proposed Pump Access Road		
Standard Value:	No Access	Design Speed:	35 mph
Existing Value:	No Access	Advisory Speed:	35 mph
Proposed Value:	Access, (break in ROW)	Advisory Speed:	35 mph

b. - Accident Analysis

Current Accident Rate:	
Statewide Rate:	N/A
Is the non-standard feature a contributing factor? Anticipated Accident Rates, Severity, and Costs:	Due to the low volume of turning vehicles and access control gate no effect is anticipated.

c. - Cost Estimates

Cost to Fully Meet Standards:	Due to the limited options for other access routes no costs were estimated
Cost(s) For Incremental Improvements:	None.

d. - Mitigation (e.g., increased superelevation and speed change lane length for a non-standard ramp radius):

Limit access to City of Buffalo employees

e. - Compatibility with Adjacent Segments & Future Plans:

Feature is consistent with other nearby sections of this interstate and is not expected to affect future transportation plans.

f. - Other Factors (e.g., Social, Economic & Environmental):

Access to the pump station from other locations is limited by area topography, the CSX Railroad tracks, the Peace Bridge, the I-190 and the Niagara River. Access could be provided from the northbound I-190 but that less safe than access from Ramp SD.

g. - Proposed Treatment (i.e., Recommendation):

Add Access Road pull-off to facilitate deceleration and to remove turning vehicles from Ramp SD traffic flow.